

Preliminary Report of the

Artifacts of Old Oranjestad

Found on the 22nd & 23rd of February 2010

*Drs. Raymundo A.C.F. Dijkhoff, drs. Harold J.
Kelly, Fransisco Croes and Gianni H. Angela*



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The Artifacts of Old Oranjestad

1 Introduction

On Monday the 22nd of February 2010, while on his lunch break buying some food at a local foodshop in the Mainstreet of O'stad, Caya Betico Croes, and on his way back to the National Archaeological Museum Aruba (MANA) situated in Schelpstraat 42, archaeologist drs. Raymundo Dijkhoff was called by one of the workers of the Arubaanse Wegenbouw Maatschappij N.V. that were busy with digging activities at Plaza Daniel Leo in the centre of Oranjestad. Upon his call, Dijkhoff went to this person, Mr. David Diaz (fig. 1), who showed him some bones that were found while they were digging. Recognizing them as animal bones, one specific bone stroke his eyes, which were turtle bones, known to have been a primary source of food for the prehistoric Amerindian inhabitants of Aruba. After this David showed some other artifacts that were found and Dijkhoff recognized them as colonial and Amerindian ceramics. Having in mind that the Scientific Department has never collected any prehistoric or historic archaeological material of Oranjestad, the capital of Aruba, and always having been very eager to collect some of this material, the whole crew of the Scientific Department of the MANA was at once informed and within an hour archaeologist drs. Harold Kelly and archaeologist-assistants Fransisco Croes and Hiram Angela went to the place in situ to document the find.



Fig. 1. David Diaz standing in front of the area where the artifacts were found.

2 The Finds in Situ at Plaza Daniel Leo

When the team of the Scientific Department arrived at the site of the finds, the workers of the Arubaanse Wegenbouw Maatschappij N.V. were still finding more artifacts of the material culture of probably the first people that had lived in Old Oranjestad (fig. 2). The presence could be felt of a very important discovery and the team was eager to take a closer look at the find. The normal procedures were being applied when such a “find call” (*reporte di hayazgo*) takes place, e.g. asking the names of the workers involved in uncovering the finds, the moment they found the artifacts, the observations made by the workers and all other details that can be recorded and documented at that moment, of which documenting with a photo camera and GPS of the find/feature at the site is the most important one. This is very important, because the collection of artifacts being found, were not collected according to scientific archaeological, excavation or documentation strategies. With the minimum amount of time present, without disturbing the work of the Arubaanse Wegenbouw Maatschappij N.V. workers, as much information as possible was recorded and documented. Also, the direct surroundings of everything visible in the pit at Plaza Daniel Leo where the find was discovered were investigated and documented with a photo camera. As these procedures were going on, the team realized that this was a major find consisting of colonial ceramics, Amerindian ceramics, a variety of animal bones, pieces of glass bottles, shell which could be of Amerindian or European origin and some other miscellaneous artifacts of which a small copper dolphin was the biggest eye-catcher. An agreement was made with the workers that every morning the Scientific Department of the MANA would come by to monitor the activities in case more material would be found.



Fig. 2. The red line indicating where the artifacts were found.

The next day the team returned and collected more material that was uncovered, but were also told that the activities were going to be stopped because of a lack of financial means of the government to finish the digging activities. The collected artifacts were then taken to the MANA where they were washed, classified, described and analyzed. As the find was of such an

importance, the staff of the MANA decided that, for a number of reasons, it would be great to be able to put them on exposition on the National day of Aruba, *Dia di Himno y Bandera*, which is celebrated on the 18th of March. With a limit amount of time available, this preliminary report was written to be able to give the Aruban society and tourists the possibility to “look through the past of Old Oranjestad” with a minimum amount of information on the artifacts found beneath the soil of Plaza Daniel Leo and the story they have to tell us.

3 Earlier Archaeological Finds of Oranjestad

Although historical archaeology within modern cities has had much attention lately, on Aruba never before the National Archaeological Museum Aruba has had the opportunity to uncover finds of the passed within the borders of Oranjestad, the capital of Aruba. One particular find comes into mind, which was a *metate* found in 2000 underneath the floor of the historical building, presently housing the Monument Buro, during its restoration (figs. 3 and 4). These Amerindian and later Aruban historic kitchen tools (wares), were found and donated to the MANA by the Monument's Buro director, Ms. Yvonne Webb-Kock.



Figs 3 and 4. During restoration activities at the Henriquez house located in Schelpstraat, a metate was uncovered.

From historic documents, we know that in 1875, Jennings and Hoskins came to Aruba as associates of the Aruba Gold Concessions (Aruba Island Gold Mining Company) and when they placed the first pier of the Harbor of Paardenbaai, they found various urns at a place then called Forti Abao (Hartog 1980: 25, Dijkhoff & Linville 2004:38). This is the area where nowadays Arubus and the ex-department of the Department of Public Works is situated. This means that at some point in time, during the Ceramic Period (900/1000-1515 A.D.) of the Caquetio Amerindians, the Paardenbaai area was exploited by the early agricultural inhabitants of our island, but unfortunately it is impossible to investigate the exact activities that took place, because most of the material found in 1875 was lost due to the lack of care at that time of preservation of antiquities (Hartog 1980:25). Hartog (1975: 24) also mentions that human bones were found at this “Forti Abao”, although no historic records exist of the existence of this “fort” (more a battery). According to him, Teenstra also mentioned its existence in 1828 and people before World War I then still alive had seen its remnants. Important is that one of them told Hartog that his father had found human bones at the site. The first question is if they really were human bones. The second question would be, if they were human bones, were they of Amerindians and were they found when Jennings and Hoskins were placing the first pier of the harbor of Paardenbaai. Hartog thinks that Amerindians may have lived at Forti Abao in the early 18th century (Hartog 1980:59).

Oranjestad grew very fast as the capital of Aruba in the second half of the 1900's, when Aruban archaeology was developing from the time of the "first pioneers" (1880 to 1923) to a "transitional period" (1924 to 1959). Little by little Aruban archaeology was being discovered by foreigners, some with a scientific background, but without being professional archaeologists. Obviously the capital of Aruba became asphalted very fast in this same period (e.g. by 1934 Rancho was totally asphalted), and in some way or another didn't get the archaeological attention or was not noticed by those who worked in the archaeological field at that time. Probably it also had to do with the fact that no archaeologist was on Aruba on a permanent basis at that time. Also the economic development of Oranjestad must have been a main priority, combined with a lack of knowledge of those working on these projects, which had as a consequence that we don't know anything on a scientific level of artifacts of Old Oranjestad.

4 Classification of the Artifacts

A total of 91 artifacts and 58 animal skeletal remains were recovered, giving a grand total of 149 historic remains that were categorized and analyzed.

4.1 Class A. Glass

Glass bottles were initially very common in Roman Britain, but after the departure of the Romans, the glass bottle disappeared. It was until 1630 that the manufacture of glass bottles was resumed in England. They could be produced quicker and were cheaper than earthenware bottles. In the experimental period (1630-1660), the models had a typical onion-shaped body, tall neck and low basal kick and string rim for tying the bottle's cork stopper app. one centimeter below the mouth. By 1650 there was a mass production of this bottle type. Between 1680-1715, the "Dumpy" style developed. This bottle had a larger bulb, more pronounced shoulders and the string rim close to the mouth. The dumpy or squat feature was because of the short neck, while the kick was slightly deeper. From 1715 to 1740 bulbous models with wider bases were produced. The Dutch also started a bulbous form, but with a deeper kick. The Dutch wine bottles of the first half of the 18th century had a squatter body, taller neck and deeper kick than the English models. Important is that the string rim for tying the cork to the neck was rectangular, carelessly finished with the ends overlapping, while the flat lip was everted. The English bottles of this period were carefully finished, without an overlap and triangular or flat in shape. The pontil mark is typical for the Dutch bottles. This mark was left in the kick where the pontil iron broke off. Once the glass blower had taken liquid glass with his blow pipe from the oven, it was blown into a bullet-shaped body with neck, after which the pontil iron was placed underneath the ball of glass with a small amount of liquid glass. Here the iron was pressed in to form the kick. The neck was cut from the blow pipe with a pair of scissors, heated again and finished using tweezers with bent ends (Nagelkerken & Hayes 2002:75). The pontil marks were sometimes polished, especially on English bottles. After 1870, pontils were no longer used and instead, an instrument called the "snap" was employed leaving no traces mark behind. This so-called snap holds the bottle with two half circular arms, while the neck is reheated and finished by hand. Then a movable ring closed the arms of the snap securely around the bottle (Lorrain 1968 in Nagelkerken & Hayes 2002:79).

Square case gin bottles from Holland have a flat collar, also called "pig snout" (18th century: fig. 5) or tapered collar (19th century) and are derivatives of the bottles with straight and tin sides manufactured in the 17th century (Nagelkerken & Hayes 2002:77).

English bottles often look black in reflected light. Wine bottles from France of the 18th century are broader at the shoulder than at the base, with tall necks and loose string rims that were pressed against the neck for better adhesion (Nagelkerken & Hayes 2002:76). Bottles during the 17th and 18th centuries were primarily used for spirits and wine, but they were also used for other purposes e.g. fine oils, syrups, olives, capers, anchovy, tuna and toiletwater. Bottles from the 17th century that belonged to the oldest ones were still free-blown, while the walls were made straight with a small wooden board. Later on, moulds were used. Case bottles from the second half of the 17th century were blown in clay or stone moulds and later in wooden moulds, especially in the 18th century. Interestingly, the grain of wood can sometimes be seen and the side walls are often concave. The moulds became more conical after the 1700s, with the consequence that the bottles

could be pulled out easier from the moulds. The bottle neck and mouth were made by hand and it was not until the second half of the 19th century that iron mould were used. Mouth-blown bottles were still connected to the blow-pipe after being blown. However, before that connection was broken, a hot iron bar was pushed against the base of the bottle. After this, the blow-pipe was pulled loose from the bottle and the mouth was formed by hand. At last the connection between iron bar and base was broken (Nagelkerken & Hayes 2002:78, 79).



Figs. 5 and 6. A number of views square gin glass bottles with a flat/flared snout or tapered collar (http://www.bottlebooks.com/questions/march%202005/march_2005_questions_ask_digger.htm, and course).

The color of the glass between 1680 and 1790 was mostly black to very dark green, while from 1790 on, it became olive green, which was much lighter (cursus Caracas Haviser). Early 19th century pharmaceutical bottles, perfume bottles and ink wells, may have been produced in Holland, England, France or North America (Nagelkerken & Hayes 2002:83).

In general, wine bottles originate from Holland, England and France, beer bottles from Holland, England and France, while square case gin bottles originate from Holland (Nagelkerken & Hayes 2002:16). Dutch wine bottles are from the 17th and first half of the 18th centuries, French wine bottles are from the 19th century and English wine bottles from the 18th century. Dutch, English and Venezuelan beer bottles date from the 19th and 20th centuries. The Dutch square case gin bottles are from the 18th and 19th centuries.



Fig. 7 (pg. 33 Nagelkerken 2002)

A total of 12 fragments were recovered (table 1).

Pics 3 + 4: Beer bottle pg. 33 Nagelkerken & Hayes 2002

Gin bottles Figs. 37 and 38 Haviser cursus

Glass artifacts	Period	Origin	Glass	Total
Gin square case bottles	Late 18 th (1790)-First half 19 th Century (1800-1850) 18 th century (1700-1820)	Holland	3 Bases 2 Glass bottle mouths (flat collar)	5
Beer bottle	First half 19 th century (1800-1850)	Holland (England or France)	1 Neck and rim	1
Perfume bottle	1850-1900	Holland/England/France/North America	1 Part of lid	1
Undetermined	19 th century	Holland/England/France	1 Base fragment (beer or wine bottle) 4 Body fragments	5
Totals				12

Table 1. Glass artifacts and their respective period, origin and totals.



4.2 Class B. Earthenware

Group 1. Tinglazed earthenware

Earthenware of this category has an opaque glaze, to which an oxide was added, and has a soft, yellow body. In Holland and England it is called *delft*, in France *faience* and in Italy, Portugal and Spain *majolica* (Nagelkerken 2000:7, 14). This earthenware, or majolica, was produced in the northern part of Holland from the middle of the 16th century. It was derived from the Italian majolica which had been produced in Spain since the 13th century. It was first imported in Holland in the period 1475-1500. The Dutch fayence, which later became known as delft, was first produced between 1620 and 1635, in response to the popularity of imported and expensive Chinese porcelain. By 1660, Dutch delft had replaced majolica as the most popular dinner ware in the Netherlands (Wilcoxon 1987 in Nagelkerken & Hayes 2002:81). There was a high production rate during the 17th and 18th centuries. This tinglazed tableware was an important export product of England in the first half of the 18th century, and went on until 1780, but after 1730 it decreased in popularity, because of the production of much harder tableware. This was a fine, white stoneware which was covered with a clear saltglaze (Nagelkerken 2000:68,70). A total of 3 fragments were found.

A total of 3 sherds were recovered (table 2).

Pic 5: drug jars fig. 2 Havisers cursus

Tinglazed earthenware artifacts	Period	Origin	Earthenware	Total
Drug jars	17-18 th century	Holland	1 Rim sherd 1 Body sherd 1 Annular base fragment	3
Totals				3

Table 2. Tinglazed earthenware artifacts and their respective period, origin and totals.



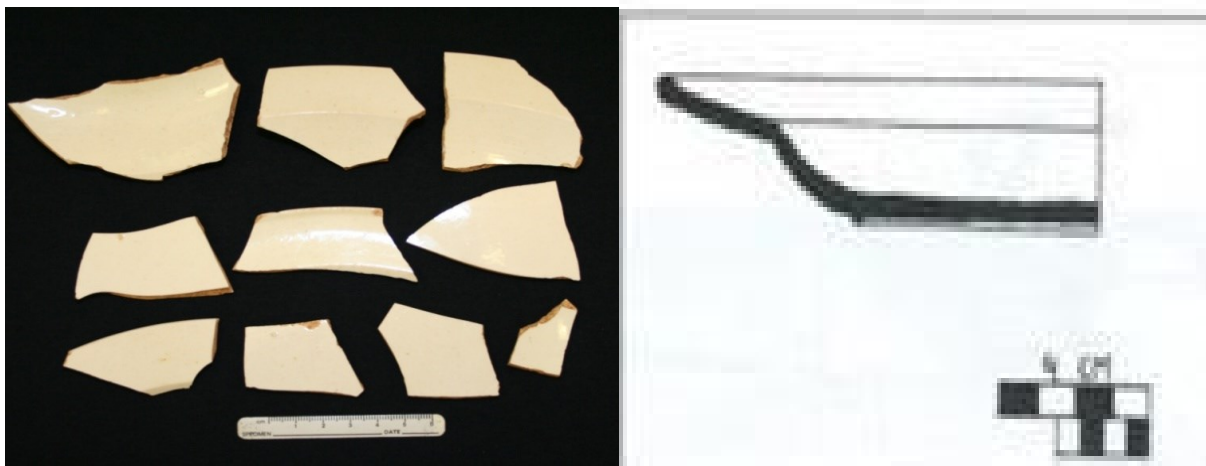
Group 2. Cream-colored earthenware

By 1760, fine white clays were being used in England, after the great days of the English *delft* in the first half of the 18th century. It became England's major ceramic export of production centers, like the most important ones at Staffordshire and Yorkshire. Ceramics of this clay have a white or buff body with a clear yellowish leadglaze. The cream-colored body in its earliest form was the same as that used in the manufacture of white saltglazed stoneware, but was fired at a lower temperature and dusted with a dry, galena glaze derived from oxide of lead and ground flint (Nagelkerken 2000:17, 70). A total of 10 fragments were found (table 3).

Pic.: fig. 23 pg. 19 Nagelkerken 2000

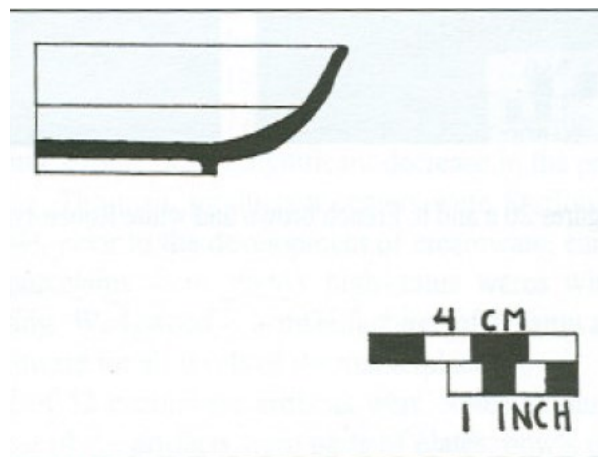
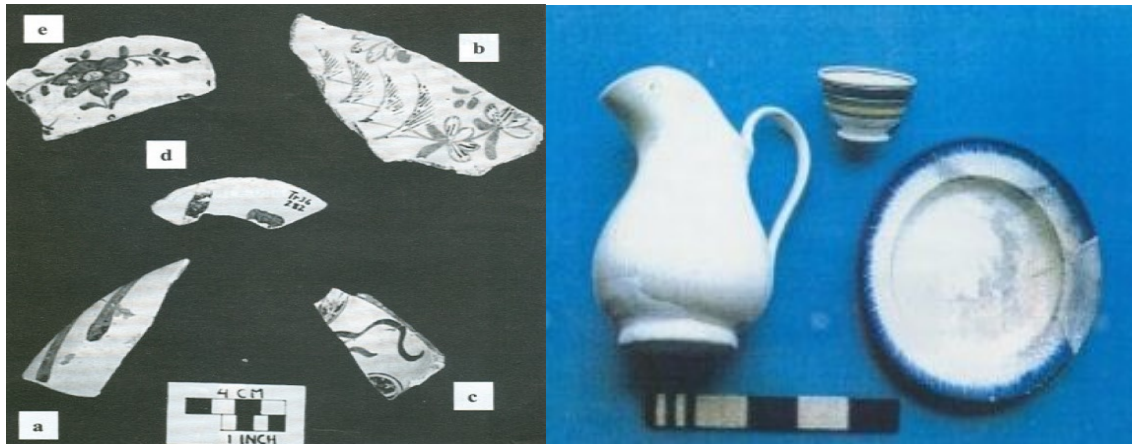
Cream-colored earthenware artifacts	Period	Origin	Earthenware	Total
<i>Muffin</i> plates	Second half 18 th - first half 19 th century	England	4 Rim fragments 4 Body fragments 1 Base fragment	9
Undetermined	19 th -20 th centuries	England	1 Body fragment	1
Totals				10

Table 3. Cream-colored artifacts and their respective period, origin and totals.



Group 3. Pearlware

Pearlware is a bluish-white ware invented by Wedgwood and does not have the translucency of porcelain. A small quantity of cobalt was used (to negate the yellowness of the clear leadglaze), just as a small quantity of limestone was added (to whiten the body). Very common are the blue or green shell-edged forms borrowed from creamware. It's production started in the 1770's and by 1810, pearlware was the dominant tableware in America. By the 1820's, this dominance was over and various forms of hard white ware and semi-porcelain superseded it. They are all English and dated in the period 1780-1830 (Nagelkerken 2000:22).



A total of 10 sherds were recovered (table 4).

Pics: Soup plate fig. 16 Havisser cursus

Pearlware artifacts	Period	Origin	Earthenware	Total
<i>Muffin</i> plate	First half 19 th century (1815-1830)	England	1 Rim sherd	1
Soup plate	First half 19 th century (1810-1830)	England	1 Rim sherd	1
Saucers	First half of 19 th century	England	2 Rim sherds	2
Bowl	First half of 19 th century	England	1 Bottom sherd	1
Cup (?)	19 th century	England	1 Rim sherd	1
<i>Muffin</i> plates	19 th century	England	3 Bottom sherds	3
Undetermined	First half of 19 th century	England	1 Body sherd	1
Totals				10

Table 4. Pearlware artifacts and their respective period, origin and totals.



Group 4. Coarse earthenware

Type A. Coarse earthenware

Normally, coarse earthenware consists of a thick, mostly red, crude body with or without glaze and is fired at a low temperature. If European, this artifact class comprises the most humble class of house- and kitchen wares and the diversity of form, function and glaze is more considerable than other ceramic artifacts. Mostly these artifacts were not used for tea and dinner tables and were considered low-status ceramics. For most of them, the exact origin is difficult to ascertain, but mostly they were made in Holland and England. In Orange Bay (St. Eustatius), the most common forms of these house- and kitchenwares were dishes, bowls, pots and pans (Nagelkerken 2000:24, 70).

This coarse earthenware can also be of local manufacture, being either of the Ceramic Period (Dabajuran/Caquetio if locally made) or the Historic Period. The Dabajuroid Tradition is characterized by a predominantly rectilinear polychrome and byochrome painted style, which sharply contrasts with the preceding Macro Tocuyanoid Tradition.

The Macro Dabajuroid Tradition, and specially the Dabajuran and Tierran Sub-traditions, is characterized by a sharp dichotomy of the ceramics into two very different kinds of wares; one which is crudely made and whose shapes are functionally related to cooking and storage (Ordinary Ware), and the other is a much better and finer ware (Fine Ware), and is functionally associated with food-serving and storage (mostly liquids, and in some Sub-traditions to store the bone bundles of the deceased) (Oliver 1989:422). We don't know very much of the ceramics of the Historic period. Of both the Ceramic and Historic periods, it should be taken into account that foreign Amerindian ceramics also were imported to Aruba by means of trade (Dijkhoff 1997).

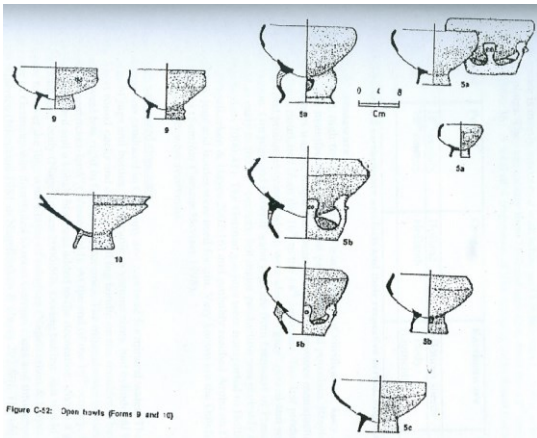
A total of 21 fragments were recovered (table 5).

Pic.: C-51 pg. 64 Appendices scriptie RD 1997

Coarse earthenware artifacts	Period	Origin	Earthenware	Total
Undetermined	18-19 th century	Holland/ England	11 Body sherds	11
Bowls/jars	Early and Late Urumaco (1100-1450 A.D.)	Aruba/Dabajuran	2 Ordinary Ware rims	2
Bowl	Urumaco (1100-1450 A.D.)	Aruba/Dabajuran	1 Fine Ware body fragment	1
Undetermined	Urumaco (1100-1450 A.D.)	Aruba/Dabajuran	3 Ordinary ware body fragments 2 Fine ware body fragments	5
Undetermined	Ceramic or Historic Period?	Amerindian Venezuela/Antilles	2 Body sherds with a lug	2
Totals				21

Table 5. Coarse earthenware artifacts and their respective period, origin and totals.





Type B. Yellow-brown glazed earthenware

Artifacts of this category have a red body, are covered on one or both sides with a yellow-brown leadglaze and are mostly from Holland, France or England. These artifacts are from the 18th century and formed part of the humble class of house- and kitchenwares such as bowls, colanders, dishes, jugs, pots, platters, pans and skillets (Nagelkerken 2000:36).



A total of 6 fragments were found (table 6).
Pic.: figs. 43-45 Cursus Caracas



Yellow-brown glazed earthenware artifacts	Period	Origin	Earthenware	Total
Skillet	18 th century	Holland	1 Large body sherd	1
Undetermined	18 th century	Holland	5 Body fragments	5
Totals				6

Table 6. Yellow-brown glazed earthenware artifacts and their respective period, origin and totals.

Type C. Slip-decorated earthenware

This earthenware is mostly associated with table- and kitchenwares, such a as bowls, dishes, pans, pots and plates. They are mostly form Holland and stem from the 18th century. (Nagelkerken 2000:36). A total of 4 fragments of this category were found (table 7).

Slip-decorated earthenware artifacts	Period	Origin	Earthenware	Total
Bowls	18 th century	Holland	2 Bottom sherds	2
Undetermined	18 th century	Holland	2 Body fragments	2
Totals				4

Table 7. Slip-decorated earthenware artefacts and their respective period, origin and totals.



4.3 Class C. Stoneware

Stoneware is a hard, high fired ceramic with some degree of vitrification. They are often saltglazed and their manufacture lies between earthenware and porcelain. Rineland in Germany and the Low Countries was the major European center of stonewares manufacture. Two major schools of Rhenish flourished from the 16th to the 18th centuries. The first produced a brown ware and the second produced vessels which were clear or “gray” glazed and was centered in the Westerwald region. Gin jugs and mineral water jugs are from Germany or France, where they were produced as early as the 17th century, but major production was probably not until the 18th century (Nagelkerken 2000:41). The German gin jugs were transported to Holland for the Dutch gin industry (Nagelkerken & Hayes 2002:16) and probably reached Aruba on Dutch ships. The brown stoneware jugs and bottles were used for gin. Very known are the Dutch Blankenheim & Nolet gin exporters (Seminar Caracas Havisier 1998).

A total of 18 fragments were recovered.

Group 1. Grey saltglazed stoneware

Grey stoneware was produced in Germany and was used for mineral water. They were saltglazed and had forms of jugs and bottles. They came in various sizes, had cylindrical bodies, rounded shoulders, short round necks and often a small lug handle on the shoulder. The earlier wheel-thrown bottles were less rigid in form than later ones. The mineralwater bottles were made in “Krug- and Kannenbäcker-land” (Westerwald). At the end of the 16th century, the brown iron-oxide slip was deleted and a cobalt blue was added to the decoration, giving a good contrast against the plain grey body (Nagelkerken 2000:50). During baking, salt would be thrown in the oven in order to cover the jugs with a layer of saltglaze (Nagelkerken & Hayes 2002:80). The mineralwater of Germany was distributed to most German cities and throughout Europe, Africa and North America (Nienhaus 1981 in Nagelkerken & Hayes 202:80). The older jugs had irregular shapes seen as rings on the inside at the bottom of the jugs, as they were turned by hand on a wheel (Nagelkerken & Hayes 2002:80). Germany became a major European manufacture center of mineral water jugs and grey saltglazed stoneware such as Westerwald, popular in the 18th century after the decline of brown stoneware (Nagelkerken 2000:69).



A total of 13 fragments were recovered (table 8).
 Pic.: fig. 25, 27 *Cursus Caracas*/fig. 30 *Nagelkerken en Hayes 2002*.

Grey salt-glazed stoneware artifacts	Period	Origin	Stoneware	Total
Jug	2 nd half of 18 th century	Germany	1 Complete rim	1
Jug	19 th century	Germany	1 Bottom sherd	1
Jugs	2 nd half 18 th century-19 th century	Germany	8 Body sherds	8
Ginger beer bottles	19 th century	England	3 Body fragments	3
Totals				13

Table 8. Grey saltglazed stoneware artifacts and their respective period, origin totals.

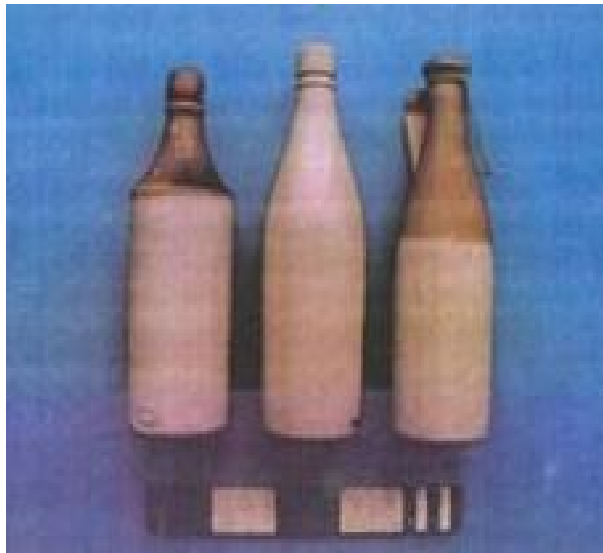


Group 2. Brown saltglazed and leadglazed stoneware

Just like grey stoneware, Holland imported brown stoneware from Germany and filled the bottles and jugs with gin, after which they were exported. The grey color remained associated with mineralwater, whereas the brown color would be associated with gin, where the amount of iron oxide determines the color (Nagelkerken 2002:80). The color would be red or reddish–brown if iron oxide was present and if not, the color would be grey (Nagelkerken & Hayes 2002:80).



An important change was that the gin bottles after 1879 were pressed in a machine, while between 1879 and 1917, with tops and ears attached by hand, but later ear-shaped handles were no longer added to the jugs. Between 1917 and 1970 these bottles were made without a handle (Nagelkerken 2002:80). At the beginning of the 20th century, its production decreased drastically because of the mass production of glass. Important to mention is that in the 19th century, around 1860, USA (North America) launched an imitation of “gingerware”, having a crème color, the so-called Bristol graze (light brown at the top) (Seminar Caracas Haviser 1998). Bristol was a major English seaport serving the American trade (Nagelkerken 2000:68). In the 17th and 18th century England manufactured brown-glazed *Fulham* stoneware. Its manufacture could have continued in the 18th century, but because of the increasing availability of glass bottles, the market for brown stoneware bottles rapidly declined (Steponaitis 1979 et al. in Nagelkerken 2000:69).



A total of 3 fragments of brown salt-glazed and lead-glazed artifacts were found (table 9).
Pic.: fig. 27, 30 Seminar Caracas

Brown saltglazed and leadglazed earthenware artifacts	Period	Origin	Stoneware	Total
Gin bottle body fragment	1879-1917	Holland/Germany	1 Body fragment	1
Gin bottle/ginger beer bottle (butter churns?)	2 nd half of 19 th century	North America	2 Body fragments	2
Totals				3

Table 9. Brown saltglazed and leadglazed earthenware artifacts and their respective period, origin and totals.



Group 3. Leadglazed stoneware

This category comprises of stoneware with a leadglaze other than of a grey or brown color.



Of this category, two fragments were recovered (table 10).

Pic.: fig. 34 Caracas cursus

Lead-glazed stoneware artifacts	Period	Origin	Stoneware	Total
Big bowl: storage (or transportation)	?	?	1 Rim of big bowl	1
Baking pot	19 th -20 th century	North America	1 Cylindrical handle fragment	1
Totals				2

Table 10. Leadglazed earthenware artifacts and their respective period, origin and totals.



4.4 Class D. Miscellaneous

In this class, less found artifacts of the Oranjestad/Plaza Daniel Leo feature were grouped into one class.

Group 1. Yellow bricks

These bricks are yellow and typical Dutch made IJsel-stones imported via the river as ballast, particularly from the 17th century on. They were used in Dutch buildings for decorative purposes of walls and floors. Later they developed into red bricks (seminar Caracas Haviser 1998).



One such possible brick was identified in the Oranjestad artifacts (table 11). It is a small corner piece with a light reddish clay substance on each side and inside the brick.

Pic.: fig. 57 Cursus Haviser

Miscellaneous artifacts	Period	Origin	Artifact	Total
Yellow brick	17-18 th century	Holland	1 Rim fragment	1
Roof tiles	19-20 th century	Holland	2 Body fragments	2
Copper dolphin	19-20 th century	?	Complete copper dolphin	1
Totals				4

Table 11. Miscellaneous artifacts and their respective period, origin and totals.

Group 2. Roof tiles

These construction materials of red clay had two basic forms: the oldest had an S-form, while the younger had zig-zag forms. The oldest before the 18th century had a black glaze on top and had a rough fabric with stones inside. The younger tiles after the 18th century are without the black glaze (seminar Caracas Haviser 1998).



Two pieces of what seems to be red roof tiles were recovered (table 11). On both of the red clay fragments traces of limestone/chalk can be found. They must stem from the 19-20th centuries.
Pic.: fig. 55 Cursus Havisier

Group 3. Copper dolphin

A 4.8 cm beautiful high-quality copper dolphin on a rounded longitudinal base with a hole was found (table 11). The dolphin was affected by corrosion/weathering and on some parts is covered by a greenish oxidation layer. It must have functioned as an ornamentation lid of some sort. At the base, striations caused by a rotating movement can be seen. Origins and date are unknown for now.



4.5 Class E. Shell

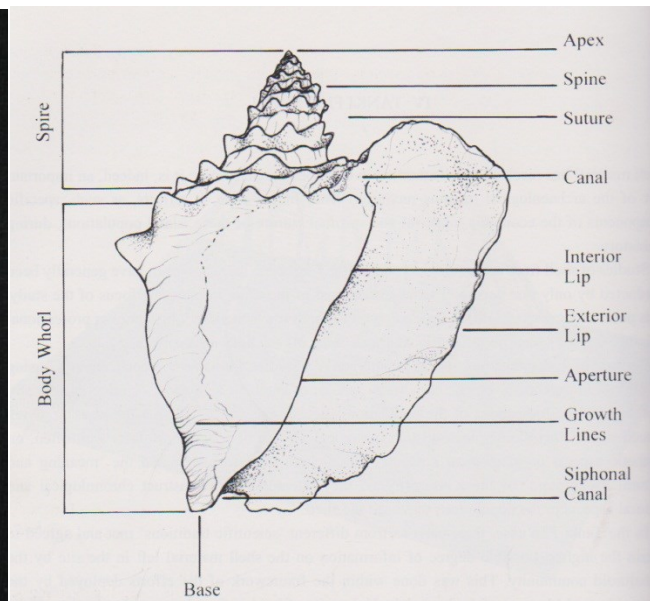
Amerindians of both Aruban prehistoric periods (Preceramic: 2500 B.C.-900/1000 A.D.; and Ceramic Period: 900/1000-1515 A.D.) and the Historic Amerindian Period (1515-1880 A.D.), exploited the island's marine resources, of which shell, especially the gastropod *Strombus gigas*, was much liked as a source for food and as a raw material for the manufacture of ornaments, symbolic objects and tools (Dijkhoff & Linville 2004). During the Aruban Historic Periods, this specie was also exploited by Arubans, especially in the 19th century when e.g. the fishermen village Rancho arose in Oranjestad.

A total of three shell fragments were found (table 12). They all belonged to the *Strombus gigas* species and all seem to be food rests.

Pic.: *Strombus gigas* met benaming, fig. 97 pg. 128 Versteeg & Rostain 1997

Shell species	Fragment	Total
<i>Strombus gigas</i>	Spine	1
<i>Strombus gigas</i>	Outer lip	2
Total		3

Table 12. Shell species fragments and totals.



4.6 Class F. Animal skeletal remains

A total of 58 animal rests were found. They consisted of 56 bones, 1 teeth of an herbivore and 1 horn of a goat. Animal species identified are of dogs, goats, chickens and turtles. Some of these must be food rests and possibly bones of animals that were part of domestic households and died, after which some bones ultimately ended up in the feature of the pit at Plaza Daniel Leo.



5 Results

5.1 Ceramics

In the group of ceramics, the largest numbers are the coarse earthenware (29,2%) and grey or brown saltglazed stoneware categories (22,2%), while the smallest category (2,8%) is the leadglazed stoneware (table 13). The presence of coarse earthenware, associated with the most humble class of house- and kitchenwares and not used at tea and dinner tables, could point that the area around the pit-feature of Oranjestad, was inhabited by humble, not rich people.

Kind of ceramic	N	%
Tinglazed earthenware (Delft)	3	4,2
Creamware	10	13,9
Pearlware	10	13,9
Coarse earthenware	21	29,2
Yellow-brown glazed earthenware	6	8,3
Slip decorated earthenware	4	5,6
Grey or brown saltglazed stoneware	16	22,2
Leadglazed stoneware	2	2,8
Totals	72	100

Table 13. The frequency of the different kinds of ceramic wares.

The presence of saltglazed stoneware (mineral water, gin, gingerbeer), could simply point to the importance of entertainment (alcohol) and the first necessity: fresh water. This fresh water could have been part of people of richer households in the direct area. The low presence of leadglazed stoneware, combined with the low presence of tinglazed earthenware (4,2%), could be because Delft ware is more from the 17th and 18th century, while the formation of Oranjestad was around the 1790's to the 1824's. The leadglazed stoneware artifact category is mostly associated with cooking (kitchen ware), like the leadglazed earthenware categories (yellow-brown and slip decorated earthenware: 10,9%), and of that category not much has been found. Probably because of it's long-term use.

5.2. Ceramics and place of manufacture

In table 14, we can observe that mostly the ceramic ware was manufactured in England (32,4%), while a minimum was manufactured in North America (4,2%). We must not forget that the Holland category, which is 18,3%, can be much larger, given the fact that there are 12 artifacts of a possible Dutch origin that were not counted in the total sum of ceramics from Holland. Even so, the England category would still possibly remain somewhat larger or even with ceramics from Holland. This is not strange, as the Dutch and English were mass producers of ceramic ware that was transported throughout the world, especially to their colonies, while they were seafaring nations. The period that Oranjestad began to form and its development afterwards, reflect the Dutch and English occupation of Aruba. Aruba was very much visited throughout its history by ships of many countries, including buccaneers and pirates that not only came for fresh food, but also for e.g. the trade in horses. Also, ships navigated constantly between Curacao and Aruba, as between Aruba and the mainland, e.g. Coro (Pto. Fijo). This assured a constant flow of

products which in the second half of the 18th century on, entered Aruba via Paardenbaai, which in that time became the most important harbor of the island (Hartog 1980, Dijkhoff 1997). Many goods were traded and it is not strange that there are artifacts found where the second capital of Oranjestad once began to flourish in the 19th century. The relative high percentage of German artifacts, is because of the export of mineral water jugs and the production of gin. From the 16th-18th centuries, Germany was the major European center of stoneware production (Nagelkerken 2000:69). The lowest numbers are from the North America and Venezuela/Antilles. In the 17-19th century, Aruba was not strongly into trade with North America, but surely indirectly emigrants and other visitors of Aruba introduced North American artifacts. Possible only few households, especially richer people, may have had these artifacts in their households.

Place of manufacture	N	%
Holland	13	18,3
England	23	32,4
Germany	10	14,1
North America	3	4,2
Aruba	8	11,3
Antilles/Venezuela	2	2,8
Holland/England	11	15,5
Holland/Germany	1	1,4
Totals	71	100

Table 14. The frequency of the ceramic artifacts for the identified countries of manufacture.

Special attention should be given to the Amerindian artifacts, as it forms an important category (14,1%) in the Oranjestad finds. Our present knowledge of ceramics of the Aruban Amerindians during the Amerindian Historic Period, is very scanty (Versteeg & Ruiz 1995; Dijkhoff 1997), it is quite difficult not to say that some of the ceramics that are relatively dated as having been produced during the Ceramic Period (900/1000-1515 A.D.), could also be from the Amerindian Historic Period. There are some important indicators for the trained eye to recognize the Amerindian ceramics as being Dabajuran. The presence of Ordinary Ware could more or less be expected, but the presence of Fine Ware, really makes one think deeper. Fine Ware is exclusively found during the Ceramic Period in habitation sites (Tanki Flip, Tanki Leendert, Sta. Cruz, Parkietenbos and Savaneta). The presence of 3 Fine Ware sherds, one of which was part of a ceremonial bowl, points to a possible permanent presence of Caquetio Amerindians in the Paardenbaai surroundings, possible corroborating the find of urns in 1875, as humans during the Ceramic Period were mostly buried inside or outside their houses. Another possibility is that that these different Fine Ware sherds were brought from another place (during the Ceramic Period or in later centuries) to this site of the feature, which could have been for a number of reasons. Strikingly, there are two sherds that for sure are Amerindian, but not from Aruba. They have characteristics of Venezuelan mainland groups, that migrated and populated the Antillean archipelago. This points to trade between Aruban groups and groups of another country or countries. This could have taken place during the Ceramic Period, but also somewhere during the Historic Period. The interesting point is that this gives a slight indication that Paardenbaai may have been inhabited or at least used as an important harbor from where international contacts were maintained with other countries.

5.3 Ceramics: Kitchenware and Tableware

Of all 72 ceramic artifacts, a total of 40 fragments could be related to its former form and use (table 15). The amount of artifacts that represent a specific ceramic type doesn't necessarily represent that same identified amount ware on a 1-on-1 basis; e.g. 9 sherds of creamware were identified as being part of a plate, but they could have all belonged to one single plate.

Ceramic Types	Kitchenware: Kind of wares	%	Tableware: Kind of wares	%
Tinglazed earthenware (Delft) (n=3)		0	Drug jar (3)	100
Creamware (n=9)		0	Plates (9)	100
Pearlware (n=9)			<i>Muffin</i> plates (4), soup plate (1), saucer (2), bowl (1), cup (1)	100
Coarse earthenware (n=3)	Bowls (2)	66,7	Bowl (1)	33,3
Yellowbrown glazed earthenware (n=1)	Skillet (1)	100		0
Slip decorated earthenware (n=2)	Bowl (2)	100		0
Grey or brown saltglazed stoneware (n=11)	Jugs (10), bottle (1)	100		0
Leadglazed stoneware (n=2)	Storage jar (1), baking pan (1)	100		0

Table 15. The frequency of occurrence of the ceramic kitchenware and tableware artifacts for 8 groups of ceramic artifacts.

The tinglazed earthenwares, creamware and pearlware categories, all are directly associated with tablewares, as elsewhere in the colonial world was the case. Together it comprises 52,5% (21) of the 40 identified ceramic wares. Kitchenware 45% (18) is associated with the categories of coarse earthenware, grey or brown saltglazed stoneware, leadglazed earthenware (slip decorated and yellow-brown glazed) and leadglazed stoneware. Only the coarse earthenware was represented in both kitchen- and tableware. This means that the identified kitchenware fragments belonged to bowls, jugs, bottles, storage jars, baking pans and skillets. The identified tableware fragments belonged to drug jars, plates, *Muffin* plates, soup plates, saucers, bowls and cups.

5.4 All artifact categories and places of manufacture

As was mentioned before, a total of 91 artifacts were recovered, of which most could be identified and linked to a country of origin or manufacture (tables 16 and 17). We can see that the greatest artifact category is coarse earthenware (23,1%) and grey or brown saltglazed stoneware, while the lowest represented artifacts are of the category of leadglazed stoneware (2,2%), tinglazed earthenware and shell (both 3,3%). The miscellaneous artifact category represents 4,4% of the total

All artifact categories	N	%
Tinglazed earthenware (Delft)	3	3,3
Creamware	10	11
Pearlware	10	11
Coarse earthenware	21	23,1
Yellowbrown glazed earthenware	6	6,6
Slip decorated earthenware	4	4,4
Grey or brown saltglazed stoneware	16	17,6
Leadglazed stoneware	2	2,2
Glass	12	13,2
Miscellaneous (roof tiles, yellow brick and dolphin)	4	4,4
Shell	3	3,3
Totals	91	100

Table 16. The frequency of all artifacts found in the Oranjestad Plaza Daniel Leo feature.

An important category in table 16 is the glass category (13,2%). This category elevates the total frequency of artifacts manufactured in Holland to 25,6%, the second highest country of manufacture of all artifacts recovered in the Oranjestad feature (table 17). Holland was an important exporter of gin and beer, which can be noted now in the total frequencies of all artifacts found in the Oranjestad feature.

Place of Manufacture	N	%
Holland	22	25,6
England	23	26,7
Germany	10	11,6
North America	3	3,5
Aruba	8	9,3
Antilles/Venezuela	2	2,3
Holland/England	11	12,8
Holland/Germany	1	1,2
Holland/England/France	5	5,8
Holland/England/France/North America	1	1,2
Totals	86	100

Table 17. The frequency of all artifacts (ceramics, bottles, roof tiles and yellow brick) for the identified countries of manufacture.

This is a significant change of frequency, as compared to the countries of manufacture of ceramics. The strong ties between Aruba and Holland are confirmed and showed that on Aruba people indeed also liked to have some entertainment using the drinking of alcohol. This drinking of alcohol has many times been associated with the Amerindian part of our 19th century society, as described by Bosch, who even said that you could only hear the Amerindian language when people got angry or drunk in far away places (Bosch 1985 [II]:151).

5.5 Bones and shell

A total of 3 shell fragments of the *Strombus gigas* were recovered. The Amerindians were known to have exploited the marine resources of this island intensively, especially the Queen Conch or *calco*. Furthermore, the fishermen village of Rancho, first mentioned in archives in 1855, was located within the borders of Oranjestad, not far from the actual find/feature. These people also exploited the marine resources, of which the calco must have been an important part of their diet. Probably the 3 shell pieces that were recovered were food rests.

The bone category needs to be further analyzed, but the identified species (dog, goat, turtle and chicken), fall mostly within the food category. Turtles were already eaten by the earliest inhabitants of Aruba and were surely exploited by the Rancho fishermen. The dog bones have to be of the Historic Period, just as the goat and chicken bones. Domesticated dogs have been part of households/dwellings throughout history, but in the 1800s and early 1900s, could have been part of the “wild” street life of Oranjestad. This also counts for chickens. Goats on the other hand, seem less plausible to have been part of the “wild” street life, although pigs in the early 19hundreds roamed freely around the streets of Oranjestad as Wagemaker wrote in his journal (Hartog 1980:333). Only the turtle bones could be of a prehistoric date, although it is a delicacy still eaten by locals to date and could be foodrests of people who lived in Oranjestad.

6 Historic Oranjestad: Paardenbaai and its Direct Surroundings

6.1 The Time Span of the Artifacts of Old Oranjestad

When we take a look at the periods the artifacts stem from and represent, we can see that there are artifacts from the Ceramic Period (900/1000-1515 A.D.), from the (late) West India Period (1636-1791) and the Colonial Period (1792-1924).

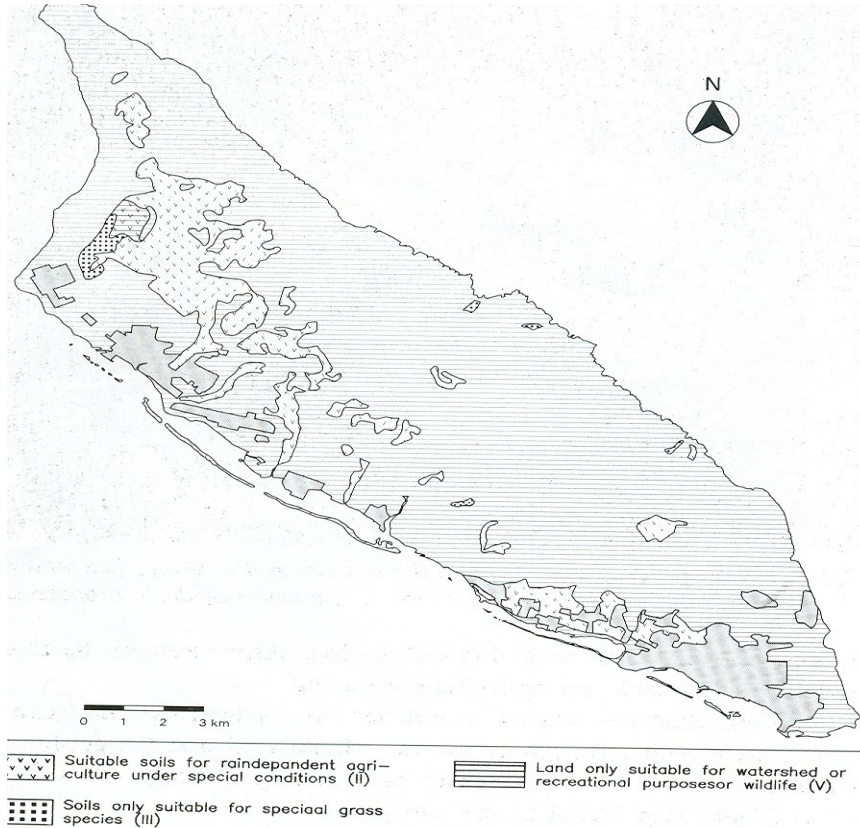


Amerindian ceramics could have been used during the Historic Periods, but not much is known of their ceramics of these epochs and we must focus on those we can be sure of that were produced by the prehistoric Caquetio. To get a better idea of the human activities within the direct surroundings of Oranjestad, we must take a brief look into the 3 above mentioned periods.

6.2 Oranjestad During the Ceramic Period (900/1000-1515 A.D.)

Pic: soil maps of Aruba & Map with sites Aruba Versteeg and Ruiz 1995,

Based on the landscape characteristics, the archaeological knowledge of the Caquetio culture and their subsistence and activities, Paardenbaai was at least used for the exploitation of marine resources.



It is also very likely that the direct area of Paardenbaai could have functioned as a permanent village, because these agriculturists needed soils suitable for the cultivation of manioc and maize, which are present in the direct surroundings of Paardenbaai. One kilometer to the north of Oranjestad, but 2 kilometers north of Rooi Lagoen, a big part of this soil is present. At about 500 m to the east of Rooi Lagoen, the abovementioned area of rich agricultural soil begins (Versteeg & Ruiz 1995:48). The hydrological situation, the presence of Rooi Lagoen was one of the two main characteristics present for these agriculturists (confluence of roois: favourable hydrological condition).



An important fact is that in the 19th century there was a plantation called Mon Plaisir. The plantation house was situated where nowadays Sweelinckstraat 19 is located. The plantation itself could be found where the Sweelinckstraat, Sibeliusstraat and the beginning of the Adriaan Lacel Boulevard is located. At this plantation, aloe and cochenille were cultivated (Nooyen 66/69:21). This means that this area some hundred years ago had very rich soils for agriculture, which sustains the possibility that the Amerindians could have cultivated crops in the Oranjestad area.

We suspect that the supposed urns found by Jennings and Hopkins, were pottery sherds of big vessels and interpreted as urns, which has been widely done by Arubans that find pottery fragments, even today, and call us to inform us that they've found urns. However, Hartog (1975: 24) mentions that human bones were found at this "Forti Abao". Although no historic records exist of the existence of this "fort" (more a battery), Hartog mentions that Teenstra also mentioned its existence in 1828 and people before World War I then still alive, had seen its remnants. Important is that one of them told Hartog, that his father had found human bones at the site. The question is if they really were human bones, and if so, were they of Amerindians and were they found when Jennings and Hoskins were placing the first pier of the harbor of Paardenbaai?

Interesting to note is that Mr. Fransisco Croes of the Scientific Department remembers that in his childhood in the late 50's when attending school at St. Dominicus College, the field in front of the school, where nowadays the Post Office is situated (Juancho Irausquinplein), there was a lot of archaeological material, mostly shell, at the side of the field, as if removed to even this field out. This means that it could have been possible that there may have been an Amerindian settlement in this area during prehistoric times. Strangely, a keen observer like father Van Koolwijk, never mentioned any presence of prehistoric Amerindian activities in this area,

although he must have been many times in the direct surroundings of the terrain in question. Also interesting to note is that the late Ignacio Wernet (ex worker of the NAMA), told Mr. Croes that when the third airport of Aruba was being built in the late 1940's (Van der Klooster & Bakker 2007:211), a large urn was found which is presently in the storage facility of the National Archaeological Museum Aruba.

When we take a look at the map of Aruba with the distribution of sites (Versteeg & Ruiz 1995:116-117), it strikes the eye that there are a number of Amerindian Ceramic and Colonial sites in the direct surroundings of Oranjestad (e.g. Ponton, Sero Blanco, Tarabana, Barcelona and Sabana Blanco). Are there no archived sites in Oranjestad, because they could never be found by archaeologists, as the center of the capital was already asphalted by the time they got interested in Aruba.

6.3 Oranjestad: the Spanish (1515-1636) and WIC Periods (1636-1791)

The Spanish Period

Of the Spanish Period, not much can be said of Oranjestad and its direct surroundings. After 1533, when some of the Caquetio deported in 1515 returned to Aruba, a handful of Spanish settled at the south-west coast of Aruba (nowadays Saventa), in the Commandeursbaai area.



How the Spanish government was exactly organized on Aruba between 1502 and 1636 is not known (Hartog 1980:37). Some government officials with the titles of *justicia mayor* and *mayor domo*, together with a clerk and possibly a lay brother with their families, will have formed the Spanish population. Most of the Amerindians lived at Santa Cruz, Savaneta and Fontein (Hartog 1980:37), some kilometers inland between Savaneta and Oranjestad (Nooyen 1965:15).

The WIC Period

When the Dutch conquered Aruba in 1636, they also settled at the southwest coast of Aruba in the Commandeursbaai. Until 1791, it was the West India Company that governed our island. The Amerindians had a better legal position under the Dutch than under the Spanish, as they could not be enslaved and lived under the same laws as the white colonists, what didn't mean that in practice this was true (Hartog 1980:56). The Dutch had to civilize the Amerindians and through education of their children, they had to convert them to Christianity. The adults had to exercise a profession, preferably being an agriculturist, or else something they were good at (Van Grol in Hartog 1980:57). The W.I.C. didn't do anything to convert the Amerndians to Protestantism, which was the religion of the few Dutch living on the island, while Catholicism was forbidden. Despite this, it didn't stop the yearly visits of Spanish priests from Coro (Hartog, 1980:78; De Palm 1985:192; Alofs & Merkie 1990:18). The free Amerindians were under the supervision of a so-called captain and as they were not laborers of the Company, they were assigned a piece of land to maintain themselves (garden cultivation). In the captainship it was guaranteed that a third party couldn't take advantage of the Amerindians (Hartog 1980:57). The Indians kept an eye on the cattle and caught it when requested by officials of the W.I.C., while they cut and sold wood and exploited marine resources (Versteeg & Ruiz 1995:55). Aruba became a big plantation of the W.I.C., a *de facto* Amerindian Reservation (ca. 1640-1754), only to be colonized with the permission of the director. Some Curaçao merchants were allowed to trade on Aruba, but not to settle (Versteeg & Ruiz 1995:56).

In 1701 Aruba was inhabited by Lieutenant Governor Flaccius, two horsemen and two soldiers (Hartog 1980:56). Possibly there lived only a few hundred Amerindians on the island in small settlements at Savaneta, Santa Cruz, Fontein and possibly at Forti Abau (Hartog 1980:59). Hartog mentioning the possibility that there were Amerindians living at Forti Abau, means that this historian also had thought of Amerindians living in the Paardenbaai area, probably based on the Jennings and Hoskins information of 1875 and the information According to Nooyen (1965:15-16), the Amerindians lived at three centres, namely Cero Cristal, Moko and Alto Vista. We can see that the 1715 census shows that 393 Amerindians lived on Aruba (Alofs 2000:66). The Amerindians moved away from the easily accessible south coast, because there the Europeans and the buccaneers came who hunted the Amerindians for red slaves (Hartog 1980:82) and went to live in the area between Noord and Piedra Plat (Alofs & Merkie 1990:19). Still whites were prohibited to settle on Aruba, but old Lieutenant Governors often stayed on the island with their families and became the patriarch of the oldest families on Aruba (Krafft 1951:66).



Besides the Amerindians living on the island, red slaves (minor girls and captive boys) were raided or bought by the Aruban Indians on the mainland and brought to the island, but there were still no black slaves (officially) living on the island, as they were not mentioned in documents between 1697 and 1758 (Hartog 1980:68-69).

In 1750 the first chapel was built on Aruba at Alto Vista, functioning primarily for the Amerindians. The profession of the Amerindians living in this area was wood cutting (Hartog 1980:83, 88). In 1754 Mozes de Salmo Levy Maduro, the first white colonist, was allowed to settle on Aruba, but under strict conditions. Between 1754 and 1767 some colonists from Curaçao settled on Aruba under the same strict conditions, while they were also obliged to carry out 'gentlemen services' (*herendiensten*), like cleaning tankis (Alofs 1996:9). In 1767, just after the first white colonists were permitted to settle in Aruba, a total of 120 households were on the island. Of these, 12 were families of the West India Company. The 108 remaining households were of Amerindians and their descendants, and of colonists (Alofs 2000:68).

In 1772 (1777 and 1778 in other sources according to Alofs & Merkies 1990:19) the second church was built on Aruba at Noord and was called the Santa Ana Church. A year later, in 1773, the first (black) land-slaves came from Bonaire to Aruba; two old and two young slaves who from then on would watch over the sheep flock (Alofs, 1996:11). In 1775, in an official declaration between the Captain of the Indians and the West India Company, it was stated that

the Amerindians had to cut wood and catch cattle when required by the Company, in return for the piece of land given to them (Rodier 1775 in Hartog 1980:76). Nooyen (1965:26) thinks that at that time there lived some five hundred Amerindians on the island, settled in Northern Aruba, while a small group of Europeans lived in Savaneta. From ca. 1780¹ white colonists began to settle on the island, coming mainly from Curaçao and Bonaire (Dutch, Belgians, Germans, Italians, French, English and Spanish), of which some were born in Europe. This was the result of land tax, which was introduced in 1785, that made it easier to get a license to settle (domiciliation permit) (Hartog 1980:72). The colonists settled principally in the flat northwestern part of Aruba at places like Buena Vista, Daimari, Parkietenbosch, Ponton, Tanki Leendert, Shiribana, Tarabana and Santa Marta where they had small plantations especially for the breeding of sheep and goats (Hartog 1980:72-73; Nooyen 1965:27). With the arrival of white colonists, little by little integration with the Amerindians took place, with the Amerindian element forming the basis of the Aruban population of today (Hartog 1980:77). Although the Amerindians tried to live as far away as possible from the white colonists, this was an irreversible process (Versteeg & Ruiz 1995:67). The exportation of horses to Cuba and Jamaica remained one of the most important sources of income on the island (Hartog 1953:75). On the first of January 1792 the second West Indian Company was liquidated (bankrupt) and her possessions were taken by the Republic of the United Netherlands (the State), that ended a strongly Dutch controlled period (Menkman 1942:130-131; Krafft 1951:15; Hartog 1980:75; De Palm 1985:189; Alofs 1996:9).

Horses, Amerindians and Paardenbaai

As Alofs (2000:115) pointed out, Aruba gradually became more important, because of the importance of the Paardenbaai. While in the first half of the 18th century no other whites (Europeans) lived other than the commandeurs and the few that worked for the WIC, because of the permission to settle in Aruba in the second half of the 18th century, trade expanded with the mainland. As a consequence, the Paardenbaai became more preferred than the Commandeursbaai, because nautically it was easier to enter and as a place of unloading animals, more and more it became appreciated (Hartog 1980:73).

The name "Paardenbaai" itself tells why this bay was called like that. With the introduction of grazing animals by the Spaniards in the 16th and early 17th centuries, Amerindians were associated with them. Already in the first half of the 16th century, they were probably forced to catch horses who freely wandered on the island until they were needed for trade (Alofs 1996:14). After the Dutch Conquest in 1636, Van Walbeeck had bad experiences with Europeans and Africans trying to catch the wild horses, reason why Amerindians were required, because they were very good at this (Hartog 1980:46). The name of Aruba is constantly mentioned in the documents of those years, especially as the place where horses were taken. Aruba became of strategic importance and functioned as a *provision depot* in actions against the mainland, which naturally came to an end after peace was made between the Dutch and Spanish in 1648 (the end of the '80 years war') (Hartog 1980:47). In 1652 Jan de Yllan, who lived on Curaçao, traded horses and Brasilwood from Aruba and Bonaire (Hartog, 1953:60). In this time, besides the horses which were used in expeditions on the mainland, the goats were the prime reason ships visited the island, because they were a delicious meal for the men who were accustomed to eat salted meat (Hartog, 1953:57). In the second half of the 18th century, the exportation of horses to Cuba and Jamaica remained one of the most important sources of income on the island (Hartog,

¹ From 1770 according to De Palm (1985:192), and from 1785 according to Alofs (1996:9).

1980:75). In the first half of the 19th century, horses of the Amerindian Coast (mainland), were very much asked for by buyers of other countries. They were brought to Aruba, where they stayed for a while, after which they were exported to the Greater Antilles (Hartog 1980:228).

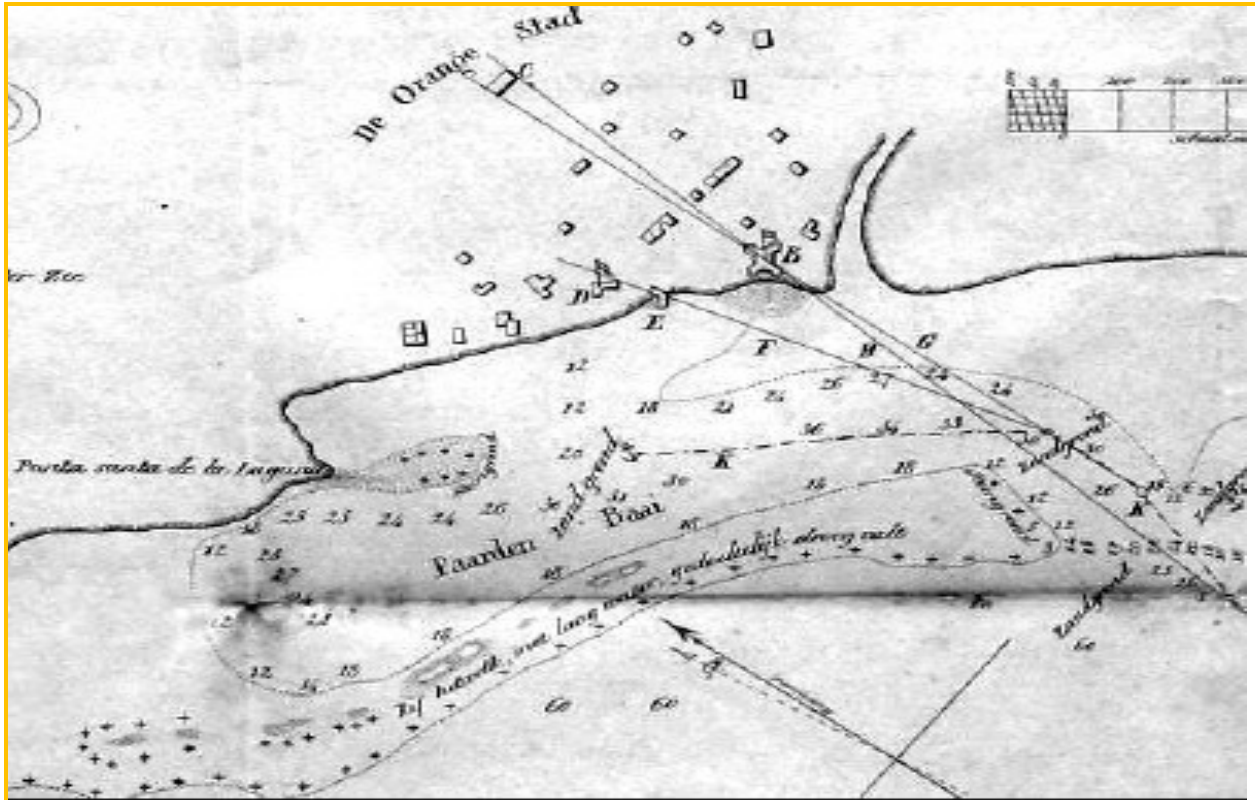
6.4 Oranjestad and the Colonial Period (1792-1924)

1792-1816

After the liquidation of the West India Company, trade, the population and also the tasks of the governor (commandeur) expanded gradually and Aruba was obliged to focus more on public instead of military works (Van der Klooster & Bakker 2007:59). The so-called “Ponton-time”, was the trigger for the formation of Oranjestad, which would become the capital of Aruba. This was a time when there were encounters/contact and mixing between different groups of society, namely the Dutch authorities (who came from Savaneta to Ponton and surrounding areas), the Spanish-Amerindian population (living in Noord/northern Aruba) that slowly migrated to Paardenbaai, and immigrants of Curacao and Venezuela (Nooyen 66/69:16).

There were turbulent times going on in this early formation period of Oranjestad, as in 1795, following the French Revolution, the French conquered the Dutch Republic and created a new state called the Batavian Republic. Officially, this was a separate state under French influence. The French emperor Napoleon Bonaparte transformed this state into the Kingdom of Holland, which lasted until 1810, when he decided to incorporate the Netherlands into the French empire. The consequences of this new political situation did have an effect on Aruba, as the Dutch were dragged into a war between England and France (Dresscher 2009:12).

In 1796 a small fortification with four guns was built at the Paardenbaai, but this wasn't enough to protect the island against enemy attacks (Bosch 1985 [II]:153; Menkman 1942:193). In 1798 or 1797 Fort Zoutman was built in order of governor Lauffer, being the first real fortification of Aruba (Bakker & Van der Klooster 2008:6). In that year Aruba (Fort Zoutman) was attacked by the English captain Edward Hamilton on the frigate Hermione, but the attack was beaten off. It was the only enemy attack in history against Fort Zoutman (Bosch 1985 [II]:154-160; Hartog 1980:92).



In 1796, Lauffer permitted free trade on Aruba, under the condition that the trade goods should be bought from Curaçao. This is probably why so many Curaçao merchants came to live at Paardenbaai. Others merchants, amongst others from French colonies, also migrated to Aruba and settled at this place (Bakker & Van der Klooster 2008:6).

In 1800 the Curaçao government decided to put itself under English protection, in order to protect itself against a French fleet in their harbour (Menkman 1942:189). In 1802, the 'peace of Amiens' put Aruba and Curaçao back under Dutch control. In 1803 the three Dutch Leeward islands were taken over from the English, but on Aruba nothing changed (Hartog 1980:92-93; Menkman 1942:189). On the 28th of June 1803 a new war broke out between England, France and Holland. In 1804 the English frigate Diana, under captain Mahling (or Maling), came to Aruba, and Aruba capitulated directly because of the bad defenses (they even offered the four guns of Fort Zoutman as land's cattle). The English flag flid only a week, and when the English left, the Dutch flag was ran up again. These short visits went on for some time. The English always put some men on land, after which the British flag was ran up. Soon the British left again. Almost always the Lieutenant Governor was not even replaced, until in October 1805 the first English Lieutenant Governor was placed, namely W. Doran (Hartog 1980:94-95). In November Changuion made a plan to recapture Aruba from the English (estimated to be some 25 men) and accompanied on the ship Suriname by amongst others Balfour, Quast and the famous Luís Brión, they attacked on land and on sea. They tried to take possession of Fort Zoutman, which for the second and last time came into action but this time manned by the enemy (the English), in a battle that lasted two days. On land two Amerindians showed the best way to come to the fortress, while fifty Amerindians offered their help to (re)capture Fort Zoutman. However, by this time the English surrendered. In December 1805 some English came to Aruba who were beaten off after a short battle. In January 1806 hundred and fifty English came to the island and

the inhabitants escaped to the woods. After destroying the Lieutenant Governors home and taking some animals, they sailed away two days later promising to return (Bosch 1985 [II]:160-163; Hartog 1980:96-100). In 1806 the Venezuelan rebellious general Fransisco de Miranda took two times possession of Aruba in his battle against the Spaniards (helped in his battle by the English), from the 10th till the 15th of April, and from the 19th of August till the 25th of September.

In May a few English ships were again on Aruba, this time for twelve days. A proclamation of De Miranda for the Aruban inhabitants was written in Spanish, because nobody could speak Dutch. After leaving the island, De Miranda soon returned to England (Bosch 1985 [II]:163-166; Hartog 1980:100-109). In 1807 Curacao fell in the hands of the English, what meant that Aruba automatically also fell in English hands (Bosch 1985 [II]:166-168; Hartog 1980:109)

Of the period 1807-1816 not much is known and also about the English government we don't know much. The food supply was a big problem in those days, and when in 1808 it leaked out that Aruba was trading with the Spanish coast and Jamaica, trade was prohibited on the island. These were difficult years, and constantly food had to be asked for from Curaçao and the mainland (Hartog, 1953:110).

On the 11th of March 1816 England officially capitulated, and again Holland took possession of Aruba, this time for up till now (Hartog 1980:119, 174-258). England didn't do anything for the progression of the island, they destroyed part of the infrastructure, while trade, cattle-breeding and agriculture were neglected (Alofs 1996:10).

A detailed report of the population in 1816 indicates that the indifference from the colonial government didn't mean that Aruban society remained unchanged. The settlers that began coming to the island around 1780 drastically changed the composition of the Aruban society that shifted from an "Amerindian reservation" to a multicultural colony as can be seen in table 18 (Dresscher 2009:13).

1816	Men	Women	Boys	Girls
4 Dutch	3	1	0	0
187 born whites	60	57	37	33
20 white strangers	9	4	1	6
564 full-blooded Indians	134	192	123	115
584 coloured free people	127	160	144	153
37 free Negroes	7	13	6	11
133 coloured slaves (Indians)	20	9	65	39
203 black slaves	46	81	44	32
Totals	340	427	311	318

Table 18. Population figures of Aruba in 1816 (after Hartog 1980:125).

Formation of Oranjestad as capital of Aruba: 1816-1929

Little by little the Amerindian element disappeared, as a result of mixture with the other races (Negroes and Whites) living on Aruba. On Aruba there was a feudal system and most of this mixture took place in the lower classes. The Indian language was slowly pushed away by *Papiamentu*, while the Amerindian language was already gone on the other islands by this time (Hartog 1980:111). Probably around 1800 the old Amerindian language disappeared (Hartog 1980:224). According to Bosch, around 1830, Amerindians, Whites and Negroes were even

intermarrying, and little by little they forgot their own languages and began to talk the White men's language, namely Papiamentu. Bosch mentions hearing the Amerindian language only when people got angry or drunk in far away places (Bosch 1985 [II]:151). Van Koolwijk with difficulty made a list in 1880 of a few (possible) Indian words, which he collected from a few old Arubans. Despite this mixture of different races, the Amerindian element dominated the Aruban population, more than on Curaçao and Bonaire, while there were minor differences in the customs between the different races on the island (Hartog 1980:112-113). Amerindians and half-blooded Amerindians even converted to Protestantism, the religion of the upper classes, between 1780-1816 (Hartog 1980:117). The two-class society that was still visible in Aruba before 1795 between Amerindian Aruba and the Aruba of the colonists disappeared in the 19th century. As a result of the lack of having a plantation economy, the arid island turned into a agro-mercantile society that was very different compared to the other Caribbean islands. Only few could enter the world of trade and landownership. These were Protestants, a class consisting out of 300 persons. The Amerindians, poor white colonists and free Negroes, formed the free class, while almost 400 slaves formed the third and **unfree** class (Alofs 2000:114).

Oranjestad became the capital of Aruba and got its name in 1824 (Harog 1953:175,176). From this village and Noord, the Catholic Church expanded her influence over the whole island, especially over the districts (Alofs 2000:134). In the first half of the 19th century, Oranjestad expanded to a village of more or less 185 houses, of which 56 were made of stone. The Roman Catholic Church was the highest building of the village and functioned as a beacon for the ships. Although Hartog mentioned that the first independent authority building must have been built between 1820 and 1830, in 1806 already a "staetehuis" is mentioned. This is probably the building called "stadhuis" on the 1815 aquarelle of the Englishman R.B. Boyd. The former could have been drastically rebuilt for the expanded tasks of the "commandeur" (Bakker & Van der Klooster 2008:6; Van der Klooster & Bakker:60,91,92). This building was demolished in 1949 and was located where today Plaza Daniel Leo is situated (Bakker & Van der Klooster 2008:6). Around 1830, of the 2420 Aruban inhabitants, 1077 lived in Oranjestad. In the beginning, there was no structural spatial organization and the few houses and huts were built where people at that moment thought would be the best place (Van der Klooster & Bakker 2007:92; Bakker & Van der Klooster 2008:6). By 1827 the capital had expanded that much, that governor (commandeur) Plats asked the Lt. Governor in Curacao permission to appoint two "wijkmeesters" and split the capital into two, using a north-south "as". This was probably the road from Fort Zoutman to the Catholic Church. The governors built their "buiten-"houses on the hills of Ponton that was connected by the same road from the Church, where they had a good view of Paardenbaai. When there were problems, they were at the fort within an hour using this road to the church and from there to the fort (Van der Klooster & Bakker 2007:93; Bakker & Van der Klooster 2008:7).

On the naval map of 1843 drawn by navy Lt. G.J. Berghuis (pers comm. Van der Klooster), it can be noticed that there are a few houses orderly situated along the actual mainstreet of Aruba (Caya Betico Croes), which probably is the first and oldest street of Oranjestad. The Wilhelmina street and Caya Betico Croes, formed the two most important roads that connected the capital with the interior of Aruba, especially after the discovery of gold in 1824 (Van der Klooster & Bakker 2007:93).

In the second half of the nineteenth century the number of red slaves (wild Amerindians) increased on the island (Hartog 1980:222). These red slaves were often under aged girls or boys who were prisoners of war and were bought on the mainland from the *cacique* (Hartog 1980:57). They were smuggled into Aruba, even by their own congeners, which ultimately resulted in human kidnapping and from time to time this developed a hostile relationship between Aruba and the mainland (Hartog 1980:222-223). Often these Amerindians ended up as house maids with rich families, or they wandered around on the island, changing from boss to boss (Hartog 1980:113; Alofs & Merckies 1990:29). In 1827 the Lieutenant Governor of that year Plats, ordered that all employers had to treat these Indians as free persons and give the children a Christian education, teach them and teach them a profession (Hartog 1980:223). A problem was that after being baptized, the AmeriIndians couldn't return to the mainland, because they would be killed. For this reason and because they had a much better life on Aruba (Bosch 1985 [II]: 86,89), these 'wild Amerindians' could be found on the island until the beginning of the twentieth century (Hartog 1980:223). In 1862, a total of 2978 free Arubans were counted, while there was a total of 509 slaves present on the island (Alofs 2000:115).

In 1863 slavery was officially abolished in Aruba, putting an end to this inhuman practice, after which the **unfree** class rapidly integrated into the second class. Self-sustaining agriculture was their most important means of living (Alofs 2000:114).

There were two gold fevers on Aruba, the first from 1824 till 1832, and the second one from 1868 till 1915. In these periods 1.343.816 kilos of gold were found (Hartog 1980:154).

Phosphate winning was the most important source of income between 1881 and 1915 (Hartog, 1980:155-156). In between these periods, agriculture was focused upon, aloë being the most important exportation product (Alofs & Merckies 1990:35-37). Around the beginning of the 20th century, as a consequence of the bad economy and poverty, Arubans went to work in other countries like Venezuela, Cuba, Jamaica, Suriname and even the United States of America (Hartog 1980:236).



According to the Werbata map of 1911, at the beginning of the 20th century the capital was not yet fully built at its western and northern boundaries. Dispersed huts were situated in that area, which was called “Rancho”. Until the beginning of the 20th century, Oranjestad was the only trade center of the island where the whole Aruban population came to buy their goods. On Saturdays, the streets would be full of donkeys and the cunucu people, men accompanied by

their wives, came to pay the merchants and also buy new goods for Sunday and the next week (Bakker & Van der Klooster 2008:8).

The supervision and maintenance of the streets, plazas and the harbor were supposedly arranged, but in reality people not always really complied. Until the first half of the 20th century people complained of the filth in the streets and the animals walking around freely, while a lot of streets weren't asphalted (Van der Klooster & Bakker 2007:93).



Aruba supported itself before the 1920s by means of extraction of gold, salt, phosphate and gold, but also with fishing and cattlebreeding. Aloe planting became the most important form of agriculture (Dresscher 2009:16). In 1924, a total of 9435 Arubans lived on the island. Most of them lived primarily from agriculture, husbandry and fishery (Alofs 2000:115). In that same year, a big change was at hand with the arrival of Captain Rodgers. He was a representative of the British Equatorial Oil Company, but his company was bought up by the Canadian Lago Oil & Transport Company and renamed Lago Oil & Petroleum Company Limited (Dresscher 2009:17). This refinery became operational in January 1929 and was located in San Nicolas. As a result of the diversity of the labor force needed for this large-scale construction work, this refinery turned into a melting pot of several nationalities in which 21 languages were spoken (Ridderstaat 2007 in Dresscher 2009:19).

Just before this, in 1927, the Compania Mexicana de Petrol el Aquila opened a refinery west of Oranjestad and was named N.V. Arend Petroleum Maathscppij (ibid). According to Alofs and Merkies (1990), the demographic and economic impact of the latter refinery was limited compared to that of Lago.

7 Preliminary Conclusions

7.1 Observations

There are 3 important points that should be taken into account when trying to interpret the Oranjestad feature and the finds. First it is important to understand the occurrence of the different categories of artifacts, their functions, dates and origins. Secondly, it is important to have historic information of the area and direct surroundings where the finds were made. This related to human activities which ultimately led to the artifacts recovered and the composition of the feature. Thirdly is the find *in situ*, i.e. the feature itself; its characteristics, composition and direct surrounding.

7.2 The Artifact Categories, Countries of Origin and Periods

In this paragraph, only the fragments/artifact of which the forms were identified, are taken into account. Consequently, the shell and bone fragments will not be treated. Artifacts, of which the forms were not identified, could be referred to when needed. The form (function) of a total of 51 of the 91 recovered artifact fragments could be determined (56%). Of the identified forms, there were 3 of the Ceramic Period (5,9%), 9 of the West India Period (17,6%) and 39 of the Colonial Period (76,5%).

Ceramic Period (900/1000-1515 A.D.)

Of all identified forms of the Plaza Daniel Leo find, the artifacts representing this period are the less represented ones (5,9%). Under normal circumstances, one would not even have expected to find any material of the Amerindians that lived in Aruba during the Ceramic Period.

Paardenbaai, nor Oranjestad, is really considered in archaeological literature as a intensive exploited area by these early inhabitants of Aruba.

As we can see in table 19, the identified forms are both from Ordinary Ware and Fine Ware. All of these fragments were manufactured in Aruba. The ethno-historic Caquetio, archaeologically known as the Dabajuroid or Dabajuran people, who produced them made these two kinds of wares, each functionally associated with specific activities. Normally, Ordinary Ware represents between 90-95% of the ceramic artifacts and is associated with cooking and storage (also transportation). In this find, 33% is Fine Ware, which is related to food-serving and storage (also ceremonial/religious activities). If we consider all recovered ceramics, 3 of the 8 artifacts of this period belonged to Fine Ware (37,5%). Of course, this was not a controlled sample, so these percentages may be a little different than what one would normally expect.

Ceramic Period (900/1000-1515)	Form artifact fragment	Origin	%
1100-1450	Ordinary Ware Bowl/jar (2)	Aruba/Dabajuran	66,7
1100-1450	Fine Ware Bowl (1)	Aruba/Dabajuran	33,3
Totals*	3	Aruba/Dabajuran	100

Table 19. Ceramic Period related to identified artifact forms, their origin and frequencies.

*Two Ordinary Ware fragments of non-Aruban/Dabajuran manufacture were found, but unable to determine the artifact form.

What does the presence of Caquetio/Dabajuran pottery in the find mean, related to Paardenbaai, Oranjestad and its surroundings? Before this find, no archaeologist ever wrote or published anything related to prehistoric Amerindian activities in this area. The only one that mentioned that Amerindians may have lived there was Hartog who placed them there in the early 18th century. That the area must have been exploited for its marine resources is no point of discussion. The main question is whether they lived in this area. After close examination of the landscape characteristics, associated with the knowledge of the subsistence and cultural strategies of the Dabajuran Amerindians, it was concluded that the right ingredients were available to house a possible village. We saw that also in the late 1800s people found pottery and human (?) bones in the area where once Forti Abao was located (Arubus/ex-DOW area). Furthermore, Mr. Fransisco Croes also remembers that the Post Office located at Juancho Irausquinplein, where in the late 1950s a field was situated, contained lots of Amerindian material, especially shell. In the second half of the 19th century, European settlers had plantations in the area located close to Rooi Lagoen, e.g. Mon Plaisir (area Sweelinckstraat, Sibeliusstraat and beginning of the Adriaan Lacel Blvd). What is truly remarkable and the diagnostic factor is the presence of Fine Ware and two Amerindian sherds of a Venezuelan/Antillean origin. Normally, Fine Ware is only found in Caquetio habitation sites, which are the villages Tanki Flip, St. Cruz and Savaneta, and the medium-sized villages at Tanki Leendert and Parkietenbos. In the satellite sites around these villages (more or less 80), rarely a Fine Ware fragment is found, even more scarce is the possibility to find a non-Aruban artifact in such sites. The 3 Fine Ware fragments are from 3 different ceramic vessels, of which one was identified as part of a restricted incurving rim bowl (rim form 5 of Dabajuran Fine Ware), which was associated with food-serving. They represent at least 3 different pots, which is very unusual for a non-village ceramic site. The presence of two non-Aruban made Amerindian pottery artifacts, definitely shows that there was much more going on in this area than simply exploiting the marine resources of e.g. Paardenbaai. This harbor must have already been used extensively by the Dabajuran Amerindians and just like at Savaneta, that was a coastal oriented village from where contacts with areas in the region were held and strengthened, it had the perfect geographical location to have a similar function. Another possibility is that the Amerindian living at e.g. Tanki Flip and Tanki Leendert used the Paardenbaai as a port from where they navigated to the mainland for trade and social-political purposes. The artifacts that we found, would represent their material, which were left behind for one or the other reason, during such activities.

It is important to be very alert during future digging activities in and around Oranjestad, as we may have to rewrite Aruban history, in the sense that probably the Europeans weren't the first ones to discover the many strategical advantages of the Paardenbaai area and surroundings, nor that they were the first ones that lived here. If our data and information is correct, we must consider the very real possibility that there might have been a sixth Amerindian village in Aruba during the Ceramic Period, which will also have its consequences for Dabajuran/Caquetio prehistoric socio-political interpretations.

The West India Period (1636-1791)

Of the total identified artifact forms of the Plaza Daniel Leo find, the WIC Period represents 17,6%. It must be said that this number could have been higher if the 9 Cream-colored Muffin plates (England) and 8 Grey saltglazed jugs (Germany), dated at 1750-1850, and the 3 glass gin square case bottles (Holland), dated at 1790-1850 (table 21), were incorporated in the WIC

Period. The percentage would have been 41,2% of the total amount of identified forms (the Colonial Period would have been 52,9%). Because the time-range of these identified forms fall more within the period after 1791 than the period before this date, it was decided to categorize them in the Colonial Period.

When we take a look at table 20, it is striking that of the 9 identified forms, 8 (88,9%) are from Holland, while the other identified form is from Germany (11,1%).

WIC Period (1636-1791)	Form artifact fragment	Origin	%
1600-1800 (17 & 18 th century)	Delft/tinglazed drug jar (3)	Holland	33,3
1700-1800	Yellow-brown glazed Skillet (1)	Holland	33,3
	Slip-decorated bowl (2)	Holland	
1700-1820	Glass gin square case bottle (2)	Holland	22,2
1750-1800	Grey saltglazed jug (1)	Germany	11,1
Totals	9	Holland (88,9%) Germany (11,1%)	100

Table 20. WIC Period related to identified artifact forms, their origin and frequencies.

*1 base fragment of a possible beer or wine bottle (Holland/England/France)

** In the European coarse earthenware, no artifact type could be identified

As explained in paragraph 6.3, Paardenbaai became useful for the Europeans in the second half of the 18th century. It became so important, that the harbor of Commandeursbaai by the end of the 18th century, had lost its function completely. The Paardenbaai became the most important harbor, not only attracting many immigrant merchants and people of the second class of Aruba (mostly Amerindians at that time), it became the center of Aruba, producing ultimately its capital Oranjestad which got its name in 1824. The commandeursseat from Savaneta had long gone shifted to Ponton, after which it moved to Oranjestad. The presence of the first mansion of the Lt. Governor as early in the 19th century as 1806, showed that the authorities also couldn't escape from the success of the many advantages Paardenbaai had. As until 1754 Aruba was a *de facto* Amerindian reservation, and the Paardenbaai was not being used until the second half of the 18th century (not by the Europeans nor by the Amerindians), it is not strange that the percentage of identified forms representing this period, is low compared to the Colonial Period identified forms. The overrepresentation of artifact forms manufactured in Holland isn't strange. The white colonists that began to settle on the island mainly came from Curaçao and Bonaire (Dutch, Belgians, Germans, Italians, French, English and Spanish), of which some were born in Europe. They must have come with their own ware, but also the Dutch were still the most represented ethnic group. Furthermore, Holland produced and exported very much e.g. Delft ware, gin in their square case gin bottles and wine, of which a lot ended up in their colonies or former colonies. Germany was the major exporter of Europe concerning stoneware, especially of mineralwater jugs.

The presence of mineralwater jugs and gin bottles, are simply because these countries exported these products extensively and they were also consumed intensively. The need and presence of fresh mineralwater speaks for itself, while gin was widely used, either as a medicine or as a stimulant. The following citation will give an idea of the intensive use of it in the past.

In former times gin was used as a drink for the crew, but also as merchandise. On board ships of the East India Company gin was given to the crewmen in daily dosages for their health. In 1713 the East India Company (VOC) distributed a list, in which was stated, what and how much the crew and the passengers were allowed to bring along their trip. The *Lyste en Reglement* permitted the *onderstuurman* to bring on board 3 *flessenkelders* for personal use. However, a merchant was allowed to bring 8 *flessenkelders* of 12 bottles each, according to a list dated 27 February 1719 (Nagelkerken & Hayes 2002:77).

Of the 7 identified ceramic forms, 3 belong to tableware (42,9%) and 4 belong to kitchenware (57,1%). The identified sherd that was part of a skillet is the only identified of the whole find. It was used to bake on. The slip decorated bowl, was probably used for the food preparation. The drug jars were used for pharmaceutical purposes. The 3 individual fragments were probably part of one single drug jar made of tinglazed (Delft) ware. This latter is more or less the oldest European artifact of the find and also the only representation of the so known Dutch Delft ware. The shown figures don't say much about activities in the direct surroundings, other than confirming the beginning of the formation of Oranjestad in the second half of the 18th century and dominating presence of the Dutch at that time on Aruba and in the Paardenbaai area.

The Colonial Period (1792-1924)

This period represented a big change in many ways in the life style in Aruba. Not only did new immigrants begin to arrive in Aruba (from 1754 onwards) and settle at Paardenbaai, but the WIC went bankrupt and important shifts in politics began to emerge. Worse was that from 1801-1816, Aruba was twice in hands of the English that more or less neglected the island in that time. The two-class Aruban society slowly changed into a three-class society, while the composition of the population not only diversified, but also grew steadily compared to the centuries before the 19th century (see paragraph 6.4). While the industrial revolution was going on in Europe, Aruba was influenced by worldly events and trends.

Of the total identified artifact forms of the Plaza Daniel Leo find, the Colonial Period represents 76,5%. This percentage, compared to the human activities in Oranjestad during the other periods, at once reflects the expansion of activities in the forming capital of Aruba, not only related to its function, but also to the growing number of inhabitants. Table 21 shows us that of all forms identified for the Colonial Period, most were manufactured in England: 53,8% (n=21), followed by Germany:23,1% (n=9); then Holland and North America both with 7,7% (n=3); and last but no least Holland/England/France, Holland/England/France/North America and Holland/Germany all with 2,6% (n=1).

If we take a look at the frequency of the identified forms related to the time-frames of the Colonial Period, most have been dated between 1750-1850: 66,7% (n=26). The time-frame between 1850 and 1900 is represented by 10,3% (n=4), while the time-frame 1800-1900, which can fall into both time-frames, is represented by 23,1% (n=9).

Colonial Period (1792-1924)	Form artifact fragment	Origin	%
1750-1850	Cream-colored Muffin plate (9) Grey saltglazed jug (8)	England Germany	43,7
1790-1850	Glass gin square case bottle (3)	Holland	7,7
1815-1830	Pearlware <i>Muffin</i> plate (1)	England	2,6
1810-1830	Pearlware soup plate (1)	England	2,6
1800-1850	Glass beer bottle (1) Pearlware saucer (2) Pearlware bowl (1)	Holland/England/France England England	10,3
1800-1900	Glass perfume bottle (1) Pearlware cup (1) Pearlware Muffin plate (3) Grey saltglazed jug (1) Grey saltglazed ginger beer bottle (3)	Holland/England/France/North America England England Germany England	23,1
1850-1900	Brown saltglazed gin bottle/ginger beer bottle (2)	North America	5,1
1879-1917	Brown saltglazed gin bottle (1)	Holland/Germany	2,6
1800-1950	Leadglazed stoneware baking pot (1)	North America	2,6
Totals	39	Holland (7,7%) England (53,8%) Germany (23,1%) North America (7,7%) Holland/Germany (2,1%) Holland/England/France (2,1%) Holland/England/France/North America (2,1%)	

Table 21. Colonial Period (1792-1924) related to identified artifact forms, their origin and frequencies.

Of the identified earthenware forms, the kitchenware is represented by 41% and consists of jugs, bottles and one baking pot, while the tableware is represented by 46,2% and consists of *Muffin* plates, a soup plates, saucer and cup. It is clear that English creamware, or cream-colored ware, and pearlware were the favorite ceramics for tablewares during the Colonial Period. On one side it could have been imported to Aruba during the English occupation between 1801-1816. On the other side, this could also be because they were a very common export product of England, especially between 1750 and 1850, although their popularity decreased during the first half of the 19th century.

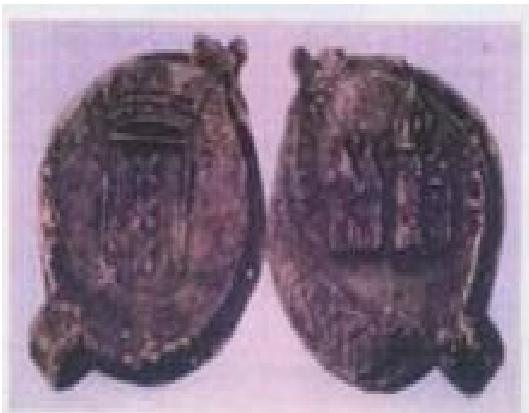
The presence of gin square case bottles, gin and ginger beer bottles, but also by a beer bottle, shows that also during this period, gin and other spirits kept being imported for and used by the Oranjestad inhabitants. The lid of a perfume bottle shows the more elegant side of feminine Oranjestad, but also puts the emphasis on the importance of this side of the changing daily life of our capital during the 19th century, especially during the second half of this century, with the diversification of Aruba's economy, stimulating agriculture (formation of districts) and industries like cochenille, aloe, phosphate and gold.

Noticeable is the import of beer and kitchenware from North America. Next to this, France also has had its influence on Aruba with a.o. its wine. Unfortunately, the fragments were too small or lacked important parts to be able to truly identify them as 100% French. The changes in amounts of forms identified for this period, together with the presence of Dutch and English products, set against a background of diversification of import products, all show significant changes that the Oranjestad society was undergoing: the Dutch and English occupation clearly left their marks on the material culture of the classes of Aruban society. The growing importance of Paardenbaai as a trade harbor shows the diversification of the products of the countries that were trading with Aruba, while the highest percentage of the identified forms of the Plaza Daniel Leo during the Colonial Period, reflects the growing capital of Aruba, influenced by the expanding industrial and agricultural sectors (gold, cochenille, aloe, phosphate). In the first half of the 19th century was a village consisting of a few hundred houses, but with a rapidly growing population where around 1830 almost half of the Aruban population lived (of the 2420 Aruban inhabitants, 1077!). The youngest dated artifact, the brown saltglazed gin bottle, sets the time border at 1917, just before the first World War started. The perfume lid of glass and stone ware baking pot handle, are dated at 1800-1950, but probably must stem from the late 19th century, early 20th century, around the time the oil refinery of Lago Oil & Petroleum Company Limited became operational.

Some remarks

When found material that was manufactured in a certain country, e.g. England, it doesn't necessarily mean that they were brought on English ships. From the 18th century it is known that an important English export of ceramic wares existed, which was also used on Dutch ships and on ships of other nationalities (Nagelkerken 2000:67). Furthermore, the identified artifact forms don't really reflect a poor or wealthy society, as it is very diverse. This is not strange, as the artifacts were not recovered from a controlled sample.

It is noteworthy that no Chinese porcelain, English whiteware or semi-porcelain was present in the Oranjestad feature. The lack of presence of tinglazed earthenware (Dutch, English or French), also known as delft, faience or majolica, is striking. An artifact category very much found of the Historic Period in Aruba, are pipes. Not one single piece was recovered, **just like no rests of oil lamps were found.**



Of the found shell in the samples, not much can be said, as they could be associated with the Ceramic, WIC and Colonial Periods. If there were larger pieces or if they would be dated, more could be said. The presence of the animal bones probably reflect food rests during the WIC or Colonial Periods. Dogs, goats and chickens were all imported with the arrival of the Europeans. The problem is that they can not really be attributed to food rests, because according to the documents that describe Oranjestad from its formation until the appointment of Isaac Wagemaker as Lt. Governor Isaac in 1928, it is clear that animals of all sorts walked around in the streets of Oranjestad. Only the turtle bones could be of an earlier, prehistoric date. This cannot be said for sure, as the Oranjestad inhabitants also ate turtles. Another important point is if some of the earthenware identified as Amerindian, could be of any of the Historic Periods. After close examination of these sherds, this chance seems very small.

Of course the question would be how representative this sample is for Old Oranjestad. But it must be considered that it was a random find and in such cases, it does say something of the area where it was found, even if it was not a strategic chosen random sample. Normally, such a find would be associated with the function of the direct area, related to human activities therein over the time-span the artifacts represent. Can that be said in this case? If the 1st mansion of the Lt. Governor of Aruba was situated at the Plaza Daniel Leo, could there be artifacts that can directly be related to the function of this authority mansion and its many public and household functions? It will always remain a guess if we take a look at all artifact categories. But there are two small possibilities. The first one is the presence of two fragments of red roof tiles with some kind of chalk attached on both surfaces and the presence of a yellow brick. Oranjestad did not have many stone houses, but a lot of huts, made of organic material and mud. A small citation could give us a clue:

Een bestellijst van 1863 uit het landsmagazijn op Fort Zoutman lijkt de voorbode van een zeer ingrijpende verbouwing: 621 balken, 300 planken, 650 klinkers, 500 schepels kalk en 15 pond geeloker voor het kleurwassen van de gevels. (...) Uit de bestellijst blijkt ook dat men bakstenen en klinkers toepaste, vermoedelijk voor het verharden van een binnenplaats en voor het opmettelen van dakkapellen en rondbogen (Van der Klooster & Bakker 2007:61).

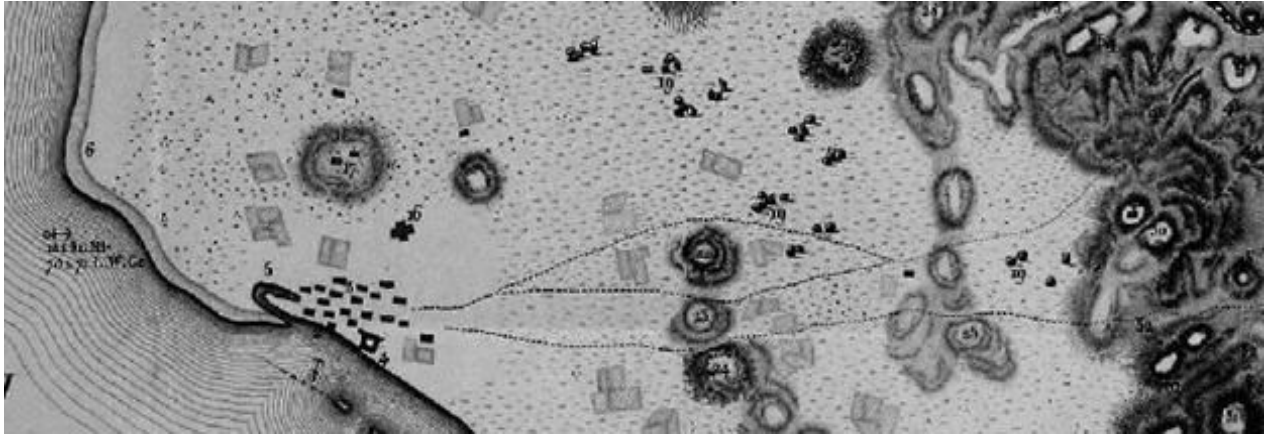
A fact is that the artifacts represent household activities that most certainly must be of Oranjestad, as the great diversity and wide time-span of the artifacts precisely reflect the socio-political and economic developments of Oranjestad between 1750 until the early 20th century. Furthermore, only in one place of t Aruba such a wide variety of activities over such a wide time-span can be found: at Oranjestad, which was the commercial center of the island since the late 19th century. This will be treated in the next paragraph.

7.3 Tentative Interpretation of the Oranjestad Feature

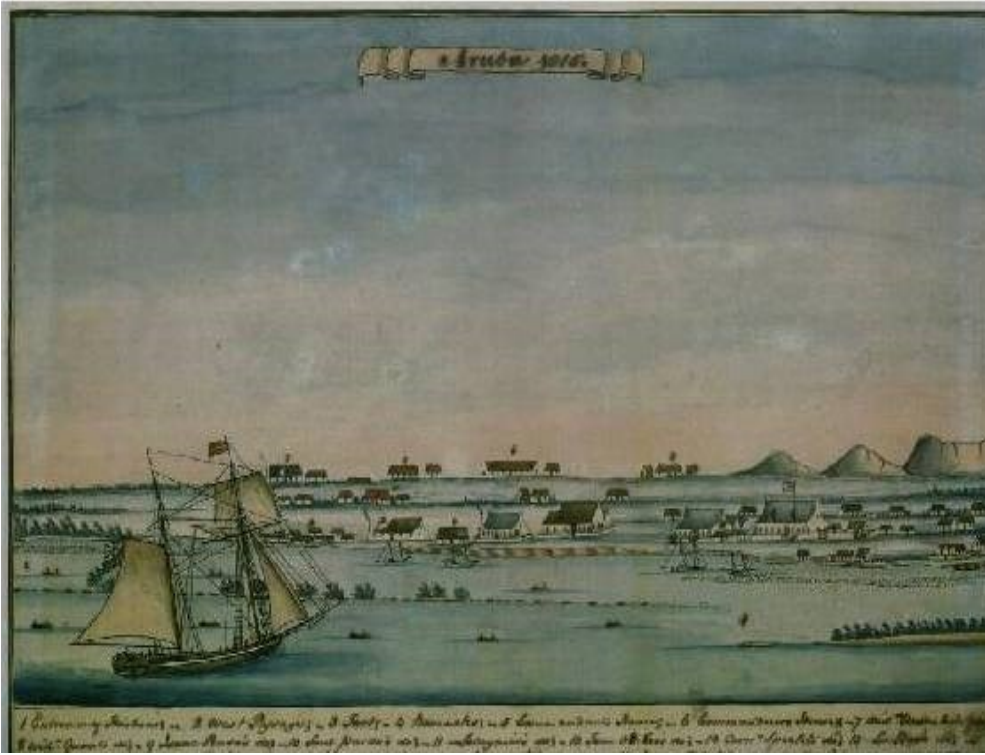
The Plaza Daniel Leo feature area

Pic.: Kaart Aruba 1825, Kaart Aruba 1843, Aquarel Oranjestad 1815, foto's Commandeurshuis Hartog 1985 en Van der Klooster & Bakker 2007, Webata kaart Oranjestad 1911 en kaart Oranjestad 1932 Van der Heide

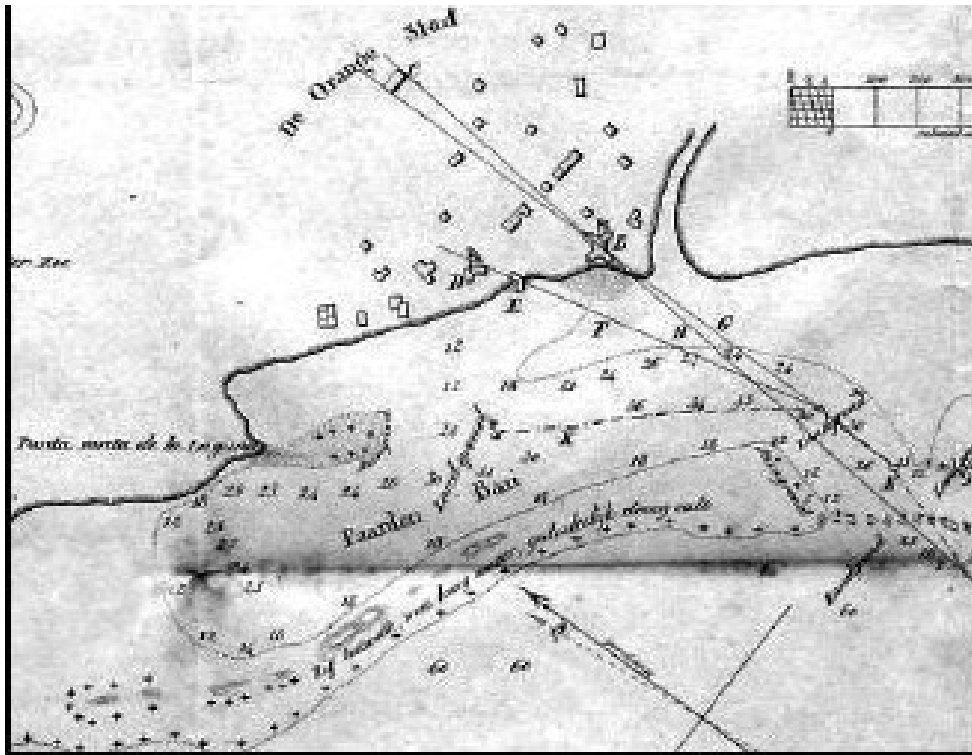
The feature was located in the northern part of the Plaza Daniel Leo (lat. 12°31'12.25" N; long. 70°02'14.29" W). According to Bakker and Van der Klooster (2008:6), where today Plaza Daniel Leo is situated, the Lt. Governor's mansion (commandeurshuis) stood from the early 1800s (around 1806) until 1949 when it was demolished. Although on the map of 1825 (R.F. Raders), Oranjestad can be distinguished but it is impossible to be able to identify any drawn house.



Interestingly, on the aquarelle of 1815 with a view from the sea at the harbor of Paardenbaai to Oranjestad, this former Lt. Governors mansion can be clearly seen. As mentioned before, Van der Klooster and Bakker (2007 & 2008) suspect that this was a possible earlier form of this mansion that could have undergone some intensive rebuilding in 1830, from which year its official building year is known.



On the naval map of 1843 (navy Lt. G.J. Berghuis), this mansion can also clearly be discerned.



Two beautiful photos of the early 1900's, give us an idea of the beauty of this rare two-story village cunucuhouse type and its grandeur.



It had a roof consisting out of old Dutch rooftiles and on an order list of 1863, we can see that for intensive rebuilding bricks, "klinkers", "schepels kalk" and "geeloker" were used (Van der Klooster & Bakker 2007:61). Until 1930-31, it functioned as a house and authority office (bestuurskantoor), as in 1931 Lt. Governor Isaac Wagemaker built his laborhouse/**dienstwoning** at Klip (Van der Klooster & Bakker 2007:62).



After this, it functioned as a “marinierskazerne” until 1938/39 and afterwards also briefly housed the Military Police (a police office), during World War II the Red Cross, and later it also housed Guides (“Gidsen”) and “Explorers” (Verkenners). In 1949 it was demolished, but in the memory of old Arubans it is still known as the old “Marinierskazerne” (Van der Klooster & Bakker 2007:62).



Important to mention is that on the Werbata map of 1911, the Lt. Governor's mansion can be seen at the beginning of the main street, but clearly there is an open space north of the mansion where the artifacts of Old Oranjestad were found in the last week of February 2010. This means that in the exact area of the find and its direct surroundings there must have been soil on the surface.



If we look at the characteristics of the functionality of the artifacts, it is obvious that they represent household activities, such as food preparation and food serving. Also part of the bones (and shell) could be food rests, while the roof tiles and brick are form a house(s). If this material represents activities in the direct surroundings of the find, they could have been part of three households. Of the Lt. Governor's mansion located at the south of it we have most information, reason why the history of this mansion is treated above. There were two houses located west of

the find (see Werbata map 1911), but we have no specific historic information of these houses. Discarded material of the families of these three houses and other human activities at the site could be part of the composition of the recent uncovered artifacts at Plaza Daniel Leo.

The characteristics of the feature

Pic.: feature of pit

At first, this was considered a feature and it was thought that it represented some kind of dump, as a wide variety of artifacts of an almost 900 time-span were uncovered. Some serious problems that we had to cope with, is the fact that we didn't make the find, but were contacted after the Arubaanse Wegenbouw Maatschappij N.V. workers had taken out most of the artifacts. This means that we don't know the exact location of every artifact related to this feature. Furthermore, a few important observations were made, e.g. Amerindian earthenware was located in higher levels, mixed between artifacts of different periods.





At first it was thought that this was a dump (afvalkuil), not only because of the wide variety of artifacts that were being uncovered, but because the outline of the feature looks like a pit. A closer look reveals that it was a natural formed cavity within the limestone soil. On the picture, three soil colors were distinguished: 1. a light grayish sand on the bottom of the feature (10 cm) into the limestone, 2. A brown-darkbrown clayish soil on top of this grayish layer (70 cm), and 3. a thick (clean of artifacts) lightbrown-brown soil around a modern pipe east (right) of this second soil. After studying the pictures closely, the team of the Scientific Department concluded that it must be one single layer of a brown to dark-brown clayish soil, as “both” layers have pieces of charcoal which are evenly distributed over the surface of the profile, thus implying that it is a single layer.

It is clear that the soil around the modern pipe is from somewhere in the 20th century, probably the second half. The light grayish soil must be soil that fell on the original brown-darkbrown clayish soil when the workers of Arubaanse Wegenbouw Maatschappij N.V. were digging. The brown-darkbrown soil must have been brought from somewhere else to fill up natural cavities at some point in time, probably to even the area. This soil was probably from the direct surroundings of the feature of Plaza Daniel Leo. This was definitely not a dump, as you would have found many more artifacts packed together and not as the present case, where we found artifacts dispersed in the packed soil.

The digging activities that the Arubaanse Wegenbouw Maatschappij N.V. minimally represent a third time that the direct area of the feature at the beginning of the main street has been filled up by artificial factors.

Interpreting the feature/pit
Pic.: fig. 24 Hartog 1980

The presence of artifacts of such a wide variety of material and representing such a big time-span, being from 1000-1917, can be the consequence of several reasons:

- 1) The pit was filled for a specific reason, e.g. just before asphaltting the main street. It could even be that this limestone soil was filled up with soil/sand to get an even walking level;
- 2) Different societies in different times left artifacts in this area, which were later washed down by water flow (rooi) into this area, ending up in a pit in the limestone soil;
- 3) People of a later time (end of 19th century, beginnings of 20th century), for one or the other reason, used old artifacts and at some point in time, deposited them in one specific place, being this pit in the limestone soil;
- 4) At some point in time, after the asphaltting of the main street, different construction activities took place. The consequence was that numerous digging activities took place in this area, including filling up with soil for construction motives (e.g. pipes). Sand/soil of another part of Aruba, containing Amerindian artifacts which were mixed with European material, was transported to this area and used for this purpose;
- 5) The last option is that the artifacts were deposited one atop another, representing successive periods of human activities, beginning with the prehistoric Amerindian artifacts which would have been deposited during the Ceramic Period, and ending with the deposits of the late 19th, early 20th century artifacts.

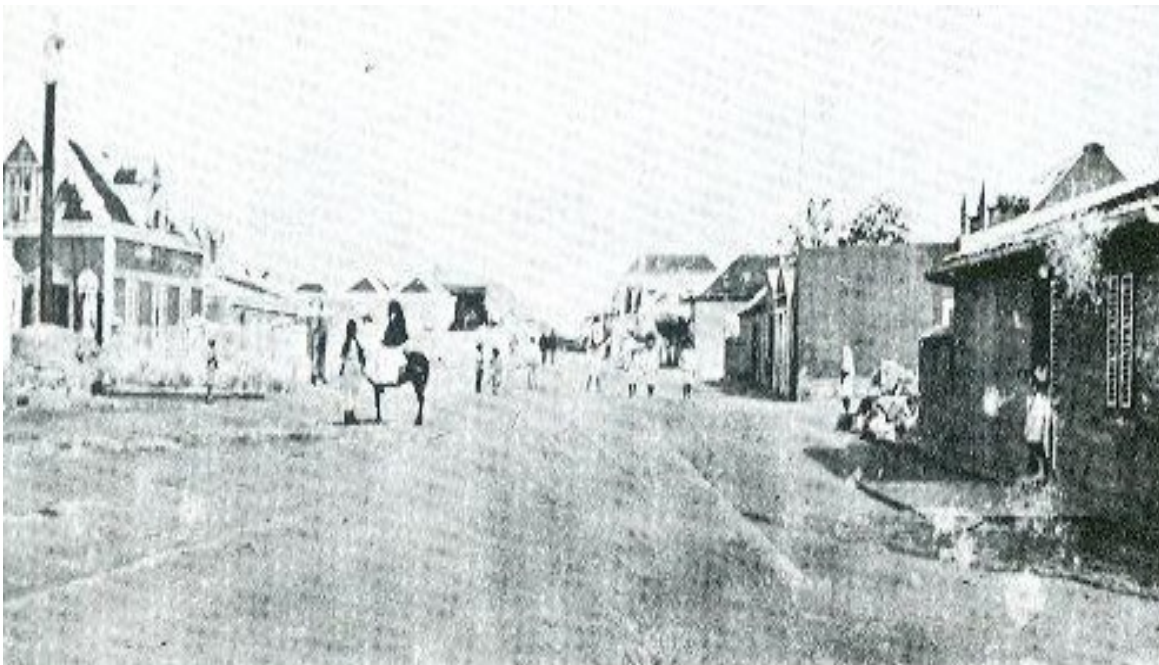
The great variety of artifact categories and their wide time-span (1700-1917), together with the characteristics of the feature, projected against human activities in the past in Oranjestad in the direct surroundings of the find and the socio-political and economical developments in Aruba's capital, point to a natural pit that must have been filled up in the 1920's with soil from the direct surroundings of the actual find. This soil was for sure from Oranjestad and not brought there from any other place of Aruba, because the diversity of the material categories and the wide time-span, can only be found in a place like Oranjestad, because it was the commercial center of Aruba and only there did so many activities take place that are reflected in the diversification of the artifacts and the long time-span they represent. There are a number of sites on the island with colonial material; some are two-component sites with artifacts of both the Ceramic Period and Historic Periods. In these sites there doesn't exist such a wide variety of material and certainly not representing a continuum of centuries of prehistoric and historic activities in one single place. It must be taken into account that there might be a slight possibility that the artifacts were deposited during successive periods and that it was later mixed, gotten out of its original context, because of building activities after the 1920s, most probably after the main street was asphalted in 1929.

The most plausible option is that somewhere at the end of 1928, just before the first road of Oranjestad, the Mainstreet Nassaustraat (Caya Betico Croes), was going to be asphalted and was being cleaned of its dumps and other rubbish, these ended up in the pit beneath the soil where it was recovered on the 22nd of February 2010.

On the 18th December 1928, the newly appointed Lt. Governor Isaac Wagemaker noticed something that really bothered him: there was no order in Oranjestad and the situation was very

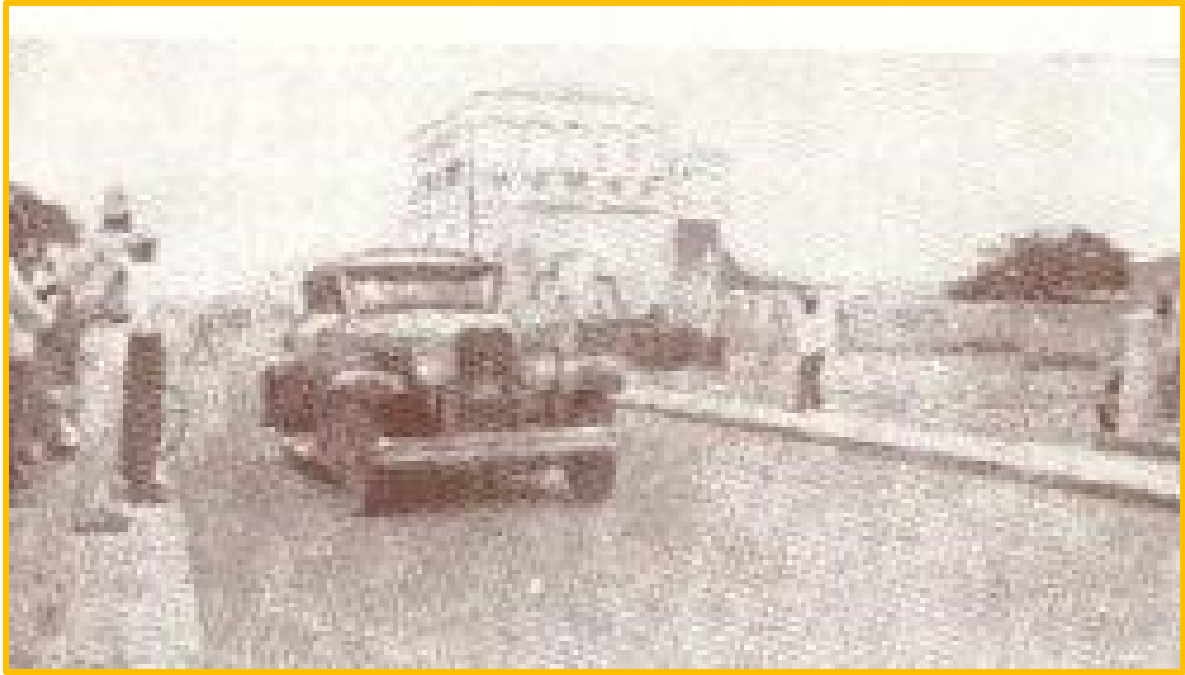
unhygienic. He wanted Oranjestad to be cleaned and wanted to asphalt important roads. In the first week of his labor as Lt. Governor, after the management meeting (bestuursvergadering), he went to take a look at the cleaning activities and wrote in his journal:

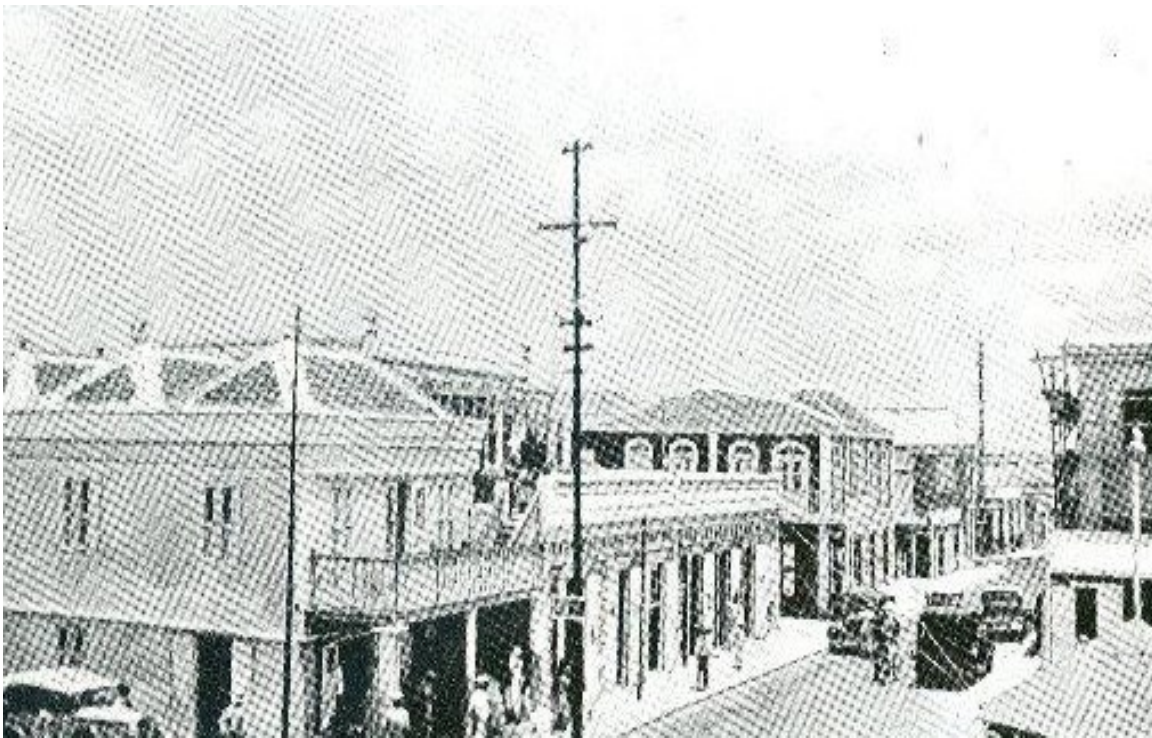
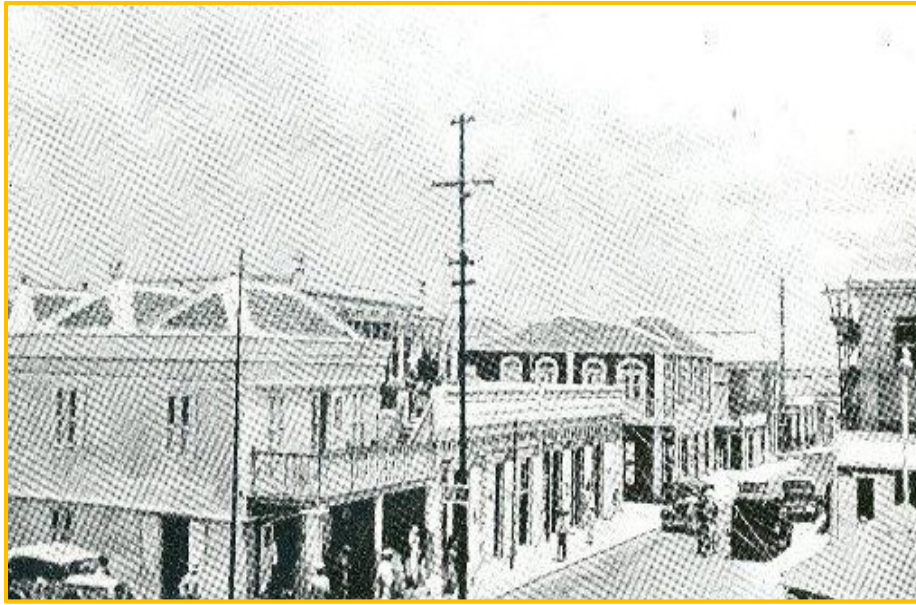
“Taken measurements against letting pigs walk on the streets and roads of Oranjestad. In the streets complete herds of these animals walk around . . .” (in Hartog 1980:333 translated by Dijkhoff).



He furthermore said that within a week, all the animals had to be out of the city, or otherwise

they would be killed. Large amounts of bottles, cans and other street filth were removed. The situation seemed to be so bad, that it took almost one year to remove this filth, transporting the material twice every day with a truck. When the Caya Betico Croes was partially liberated from its dumps, Wagemaker took the leadership in asphaltting the main street. These activities began on the 8th of January and on the 16th of April of 1929 the newly asphalted main street was opened, converting into the first asphalted road of Aruba (Hartog 1980:333).





Concluding we may say that the artifacts of Old Oranjestad, randomly found in a pit/landfill within the limestone soil and exposed during digging activities at Plaza Daniel Leo in the last week of February 2010 by workers of Arubaanse Wegenbouw Maatschappij N.V., were the direct result of human activities that took place in Oranjestad centuries before the main street of

Oranjestad (now Caya Betico Croes) would be asphalted in 1929. These mostly household activities took place between 1100 and 1917 A.D. and they were covered between 18 December 1928 and 8 January 1929, when the then filthy streets of our capital were cleaned up and simultaneously the walking level of the main street to be asphalted was evened. This caused the archaeological artifacts present within the soil used to fill up a pit and even the walking level and representing human household activities of almost 1000 years of the direct area where the find was made, to end up in a natural cavity within the limestone surface located at where now Plaza Daniel Leo is situated.



Interesting to add is that the location of the present National Archaeological Museum Aruba is located within 1 minute of walking distance of the find. A special connection can be found in the year 1929: in the same year the main street was asphalted and covered the Oranjestad Plaza Daniel Leo find, the two-story house of Dun Dun Ecury which houses the office of the director of the museum, was also built!

8 Bibliography

Alofs, L, and L. Merkies

1990 *Ken ta Arubiano. Sociale Integratie en Natievorming op Aruba*. Antillen Working Papers 15, Leiden.

Alofs, L.,

1996 *Slaven zonder Plantage. Slavernij en Emancipatie op Aruba, 1750-1963*. Charuba, Edicion Educativo no.2, Aruba.

2000 *4000 Years of Indian History: An Anthropological Perspective*. Archaeological Museum Aruba, Oranjestad, Aruba, in press. Ms. 2000.

Bakker, M., and O. van der Klooster

2008 *Cultuurhistorische Verkenning van het Schelpstraatkwartier en het Koopliedenkwartier*. Bureau Plantage Zorg en Hoop, Heemstede.

Bosch, G.B.

1985 [1829-1836] *Reizen in West-Indië*. 2 vols. N. Van der Monde, Utrecht. 1985 facsimile ed. S. Emmerling, Amsterdam, The Netherlands.

Dijkhoff, R.A.C.F.

1997 *Tanki Flip/Henriquez: An Early Urumaco Site in Aruba*. Unpublished Master's thesis, Leiden University, Leiden.

Dijkhoff, R.A.C.F., and M.S. Linville (editors)

2004 *The Archaeology of Aruba: The Marine Shell Heritage*. Publications of the Archaeological Museum of Aruba 10. Oranjestad, Aruba.

Dresscher, E.

2009 Aruba, an island navigating a globalizing world: A brief history. In *Ceque: Journal of the National Archaeological Museum Aruba* no. 1, edited by M.S. Linville, and R.A.C.F. Dijkhoff. Oranjestad, Aruba.

Hartog, J.

1980 (1953) *Aruba zoals het was, zoals het werd. Van de tijd der Indianen tot op heden*. Van Dorp N.V., Aruba, Netherlands Antilles. Originally published in 1953, De Wit, Aruba.

1985 *The Old Fort of Aruba. The history of Fort Zoutman and the Tower Willem III*. The Cultural Center Aruba.

Klooster, O. van der, and M. Bakker

2007 *Bouwen op de Wind. Architectuur en Cultuur van Aruba*. Stichting Libri Antilliani, Kabinet van de Gevolmachtigde Minister van Aruba, Bloemendaal.

Krafft, A.J.C.,

1951 *Historie en Oude Families van de Nederlandse Antillen. Het Antilliaanse Patriciaat.* Martinus Nijhoff N.V., Den Haag.

Menkman, W.R.

1942 *De Nederlanders in het Caraïbisch Zeegebied. De Geschiedenis van de Nederlandsche Antillen.* P.N. van Kampen & Zoon B.V., Amsterdam.

Nagelkerken, W.

2000 *Ceramics of Orange Bay St. Eustatius Netherlands Antilles.* STIMANA Marine Archaeological Series No. 2, Curaçao, Netherlands Antilles.

Nagelkerken, W., and R. Hayes

2002 *The Historical Anchorage of Kralendijk, Bonaire, Netherlands Antilles, including the wreckage of the Dutch Brigantine Sirene (1831).* STIMANA Marine Archaeological Series No. 2, Curaçao, Netherlands Antilles.

Nooyen, R.H.

1965 *Millefiori di Aruba.* Stichting Aruba Nostra.

1966/69 Aruba Nostra, Amigoe di Aruba. Manuscript on file, National Library Aruba.

Oliver, J.R.

1989 *The Archaeological, Linguistic and Ethno-historical Evidence for the Expansion of Arawakan into Northwestern Venezuela and Northeastern Colombia.* Ph.D. dissertation, University of Illinois at Urbana-Champaign. University Microfilms, Ann Arbor.

Palm, J. de (editor)

1985 *Encyclopedie van de Nederlandse Antillen.* 2nd rev. ed. De Walburg Pers, Zutphen.

Seminar “*Identificación y Fechado de Cerámicas Coloniales Holandesas*”

1998 Seminar given by J.B. Haviser. Caracas.

Versteeg, A.H., and A.C. Ruiz

1995 *Reconstructing Brasilwood Island: the Archaeology and Landscape of Indian Aruba.*

Publication of the Archaeological Museum Aruba 6. Oranjestad, Aruba.

Versteeg, A.H., and S. Rostain (editors)

1997 *The Archaeology of Aruba: The Tanki Flip Site.* Publication of the Archaeological Museum Aruba 8/Publication of the Foundation for Scientific Research in the Caribbean Region 141, Aruba & Amsterdam.

Internet²

<http://www.sha.org/bottle/body.htm#Free-blown%20bottle%20bodies>

<http://www.cutglass.org/articles/art1445.htm>

http://www.diggersdiary.co.uk/New_additions.htm ?????

http://www.museumoflondon.org.uk/ceramics/pages/category.asp?cat_name=Bottles,%2017th%20and%2018th%20century&cat_id=948

<http://www.bottlebooks.com/basics.htm>

http://www.bottlebooks.com/questions/march%202005/march_2005_questions__ask_digger.htm

² All accessed in February/March 2010

Appendices

Glass artifacts	Period	Origin	Characteristics	Total
Gin square case bottles	Late 18 th (1790)-First half 19 th Century (1800-1850) 18 th century (1700-1820)	Holland	3 bases, All Hammock bottle base forms, Pontil visible on all One with multi-iron rod pontil, 2 glass bottle mouths flat collar type (rim formed with tool), Olive green and light green colors	5
Beer bottle	First half 19 th century (1800-1850)	Holland/England/France	Neck and rim, Overlapping string rim, Light green color	1
Perfume bottle	1800-1900	Holland/England/France/North America	Part of lid, Transparent/clear	1
Undetermined	19 th century	Holland/ England/France	1 light green base fragment (beer or wine bottle), 4 light green body fragments	5
Totals				12

Table 1. Glass artifacts and their respective period, origin, characteristics and totals.

Tinglazed earthenware artifacts	Period	Origin	Characteristics	Total
Drug jar	17-18 th century	Holland	1 rim sherd (diameter ?), 1 body sherd, 1 annular base fragment (diameter ?), All have a buff body with a bluish-white glaze	3
Totals				3

Table 2. Tin-glazed earthenware artifacts and their respective period, origin, characteristics and totals.

Plain cream-colored earthenware artifacts	Period	Origin	Characteristics	Total
<i>Muffin</i> plate	Second half 18 th - first half 19 th century	England	4 rim fragments (diameters?), 4 body fragments, 1 base fragment (diameter ?), All have white body with yellowish leadglaze, All lightly crazed	9
Undetermined	19 th -20 th centuries	England	1 body fragment, White body with yellowish lead glaze on the inside and brown body with leadglaze, Impurities on the inside	1
Totals				10

Table 3. Cream-colored artifacts and their respective period, origin, characteristics and totals.

Pearlware artifacts	Period	Origin	Characteristics	Total
<i>Muffin</i> plate	First half 19 th century (1815-1830)	England	Rim sherd, White body with greenish-white glaze, Lightly crazed, Decorated with green shell-edge border	1
Soup plate	First half 19 th century (1810-1830)	England	Rim sherd White body with bluish-white glaze Lightly crazed	1
Saucer	First half of 19 th century	England	1 rim sherd, White body with bluish-white glaze, Flower/foliate motive in blue, Lightly crazed, 1 rim sherd, White body with bluish-white glaze, Handpainted flower/foliate motive in brown yellow and green, Lightly crazed	2
Bowl	First half of 19 th century	England	Bottom sherd with footring, White body with light bluish-white leadglaze, (diameter?)	1
Cup(?)	19 th century	England	Rim sherd, White body with lightly bluish-white leadglaze, Two darkbrown stripes and lightbrown color	1

			on the outside, Lightly crazed on the inside	
<i>Muffin</i> plate	19 th century	England	2 bottom sherds, White body with bluish-white leadglaze, (diameters?), Lightly crazed on both sides, 1 bottom sherd, White body with bluish-white leadglaze, (diameter?), Very crazed on both sides	3
Undetermined	First half of 19 th century	England	Body sherd White body with bluish-white leadglaze Parts of two human legs (?) painted in blue on the outside Lightly crazed	1
Totals				10

Table 4. Pearlware artifacts and their respective period, origin, characteristics and totals.

Coarse earthenware artifacts	Period	Origin	Characteristics	Total
Undetermined	18-19 th century	Holland/ England	1 White on black and plain painted body sherd, flower/foliate designs on the outside, No glaze, 2 light red glazed body fragments, Lightly glazed on the outside, 2 light red body fragments without glaze, 2 dark red body fragments with glaze on the outside, 1 very dark red body fragment with glaze on the outside, 1 body fragment, a pinkish body with highly glazed brown slip on the inside, 1 brownish body fragment, darkbrown on the inside and red on the outside, No glaze, 1 orange body fragment on both sides, no glaze, 1 light orange body fragment on both sides, no glaze	11
Bowl/jar	Early and Late	Aruba/Dabajuran	(2 Ordinary	2

	Urumaco (1100-1450 A.D.)		Ware rim fragments): 1 reddish brown rim, highly glazed on the outside and glazed on the inside, Rimform 17, 1 small rim fragment, red body with glaze, Rimform 21	
Bowl	Urumaco (1100-1450 A.D.)	Aruba/Dabajuran	1 Fine Ware body fragment with with slip on both sides, Eroded, but once painted black-on-white	1
Undetermined	Urumaco (1100-1450 A.D.)	Aruba/Dabajuran	(3 Ordinary ware body fragments): 1 dark brown, 1 reddish brown and 1 reddish brown inside and blackish on the outside, All with glaze on the outside and light colored on the inside light reddish brown, (2 Fine ware fragments): 1 With white slip on the outside, 1 With red slip on the outside, very eroded	5
Undetermined	Ceramic or Historic Period?	Amerindian Venezuela/Antilles	Red body sherd with a lug, Glaze on the outside, Reddish brown body sherd on	2

			the inside and dark brown with a lug on the outside with glaze	
Totals				21

Table 5. Coarse earthenware artifacts and their respective period, origin, characteristics and totals.

Yellow-brown glazed earthenware artifacts	Period	Origin	Characteristics	Total
Skillet	18 th century	Holland	Large body sherd with foot, Red body with yellow brown leadglaze on the inside	1
Undetermined	18 th century	Holland	4 body fragments, Red body with yellow-brown leadglaze on the inside, 1 body fragment, Red body with yellow-brown leadglaze outside	5
Totals				6

Table 6. Yellow-brown glazed earthenware artifacts and their respective period, origin, characteristics and totals.

Slip-decorated earthenware artifacts	Period	Origin	Characteristics	Total
Bowl	18 th century	Holland	2 bottom sherds, Red body with a black slip on both sides, Clear leadglaze on both sides (diameter?)	2
Undetermined	18 th century	Holland	2 body fragments Red body with a black slip on both sides, Clear leadglaze on both sides	2
Totals				4

Table 7. Slip-decorated earthenware artifacts and their respective period, origin, characteristics and totals.

Grey salt-glazed stoneware artifacts	Period	Origin	Characteristics	Total
Jug	2 nd half of 18 th century	Germany	1 complete rim, Grey stoneware with a clear saltglaze	1
Jug	19 th century	Germany	Bottom sherd, Grey stoneware with clear saltglaze	1
Jug	2 nd half 18 th century-19 th century	Germany	7 body fragments Grey stoneware with clear salt-glaze 1 grey body fragment very little glaze left	8
Ginger beer bottle	19 th century	England	3 grayish-white body fragments Much eroded, glaze not visible anymore	3
Totals				13

Table 8. Grey salt-glazed stoneware artifacts and their respective period, origin, characteristics and totals.

Brown salt-glazed and lead-glazed earthenware artifacts	Period	Origin	Characteristics	Total
Gin bottle	1879-1917	Holland/Germany	Body fragment of bottle, brown stoneware with clear salt-glaze, Marks of man made and applied handle	1
Gin bottle/ginger beer bottle (butter churn?)	2 nd half of 19 th century	North America	2 body fragments of bottle, light-brown/creme stoneware with clear lead-glaze	2
Totals				3

Table 9. Brown salt-glazed and lead-glazed earthenware artifacts and their respective period, origin, characteristics and totals.

Lead-glazed stoneware artifacts	Period	Origin	Characteristics	Total
Big bowl: storage (or transportation)	?	?	Rim of big bowl, Pink body with white slip on the inside and outside, Yellow-greenish lead-glaze, (diameter?)	1
Baking pot	19 th -20 th century	North America	Cylindrical fragment of handle from baking pot, Pink body with light-brown lead-glaze	1
Totals				2

Table 10. Lead-glazed earthenware artifacts and their respective period, origin, characteristics and totals.

Shell species	Fragment	Total
<i>Strombus gigas</i>	Spine	1
<i>Strombus gigas</i>	Outer lip	2
Total		3

Table 11. Shell species fragments and totals.

Miscellaneous artifacts	Period	Origin	Artefact	Total
Yellow bricks	17-18 th century	Holland	1 Rim fragment	1
Roof tiles	19-20 th century	Holland	2 Body fragments, both	2
Copper dolphin	19-20 th century	?	Complete copper dolphin with oxidation	1
Totals				4

Table 12. Miscellaneous artifacts and their respective period, origin and totals.

Still to do:

- GPS feature
- Metric proportions feature
- Munsell Soil Color Chart determining the colors
- Other landfill activities (DOW)
- “Gouvernementsstortplaats 1947” (pg. 62 Van der Klooster & Bakker 2007)
- Insert figures + text + verwijzingen + lijst
- Pagina nummering
- Draw ceramics
- Yvonne Webb-Kock vragen over roof tiles en yellow brick
- When Paardenbaai “gedempeld” (Van der Klooster & Bakker)?
- Interview with David Diaz who made the find
- Diameters rims & bases
- Incorporate sub-sub paragraphs

<http://www.sha.org/bottle/glossary.htm>

<http://www.sha.org/bottle/liquor.htm#Case%20Gin%20bottles>